THIRTY·YEARS IN·KASHMIR

ARTHUR·NEVE

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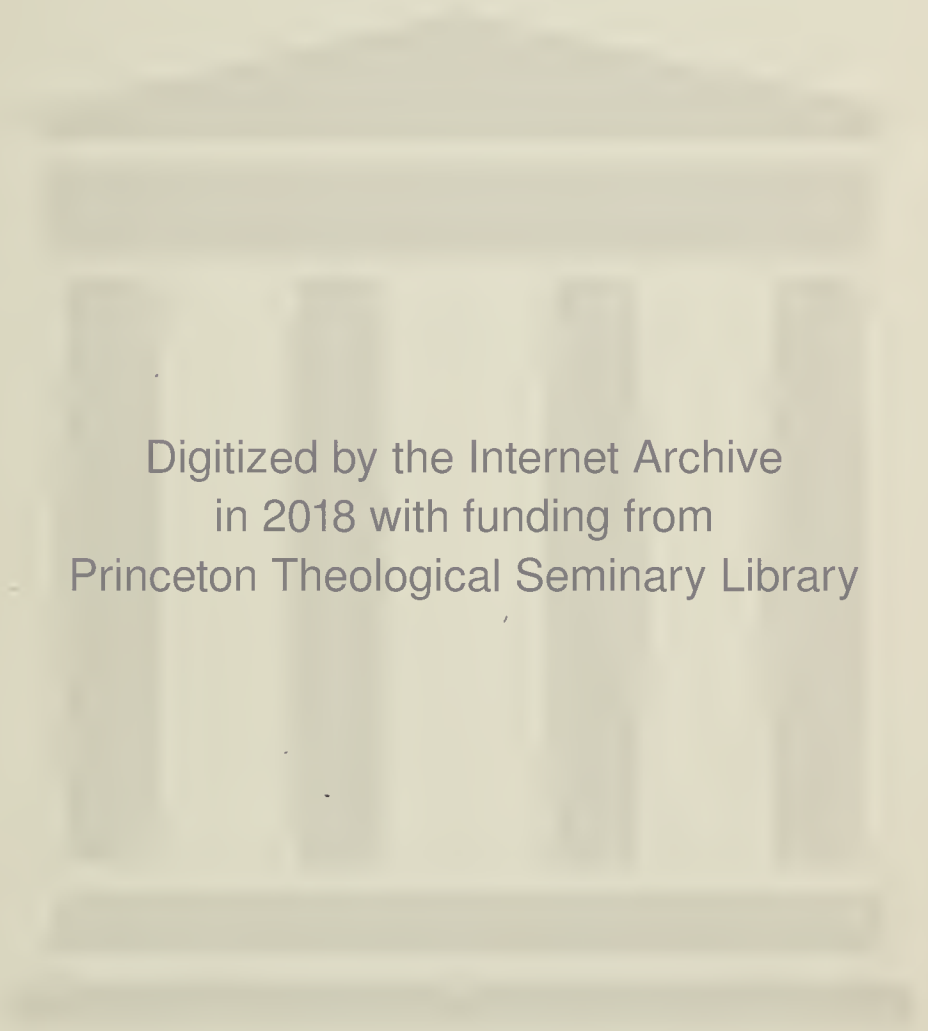

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The Author riding a Yak at the Khardong Pass.

LONDON EDWARD ARNOLD.

THIRTY YEARS IN KASHMIR

BY

ARTHUR NEVE, F.R.C.S.E.

CHURCH MISSIONARY SOCIETY

KAISER-I-HIND GOLD MEDAL FOR PUBLIC SERVICE IN INDIA; BACK AWARD ROYAL GEOGRAPHICAL SOCIETY, 1911

Author of "A Guide-book to Kashmir," etc.

ILLUSTRATED

LONDON

EDWARD ARNOLD

1913

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TO

MY WIFE

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CHAPTER I

THE PUNJAB IN 1881

Better to strive and climb
  And never reach the goal
Than to drift along with time,
  An aimless, worthless soul.
Ay, better to climb and fall,
  Or to sow though the yield be small,
Than to throw away day after day,
  And never to strive at all. ANON.

IT can never appear to the average citizen a rational thing to leave home, country, kith, and kin for an inadequate stipend and for an ideal. Yet there is an immense satisfaction in aiming at an ideal, and keeping it always in view, not discouraged by apparent failures nor by ingratitude, only regretting one's own failure at times to gaze steadfastly on the star of purpose, not the inability to grasp that which was inevitably beyond one's reach. In my student days it was especially the example of Livingstone which appealed to me, and I read every book of African travel and offered myself for Uganda soon after the death of Dr. John Smith and Lieutenant Shergold Smith, R.N., who went there in response to Sir H. M. Stanley's appeal.

I had mentioned my desire to the Rev. Henry Wright, Honorary Secretary of the Church Missionary Society, who was drowned not long after, and so the request of the Society to go to Asia instead of Africa came as something of a surprise to me.

The life of Dr. Elmslie, whose biography had been published some years before under the title "Seedtime in Kashmir," was familiar to me, and it was an honour to be asked to take up such a work, though it was no light task. Elmslie had died in it. Maxwell, his successor, had broken down in a year or two, and now Downes was withdrawing in ill-health, after some years in a famine-stricken country with an ever-growing hospital.

The work seemed to require two doctors, so I introduced my friend, David Duncan Main, to the C.M.S., and he went up to London for an interview, but returned with a commission to take charge of Hangchow Hospital in his pocket; and so the famous "Dr. Apricot of Heaven-below Hospital" was diverted to China, and there is no one better known or more respected in the whole land. We sailed in the same ship, and only parted at Aden. At that time the C.M.S. only had half-a-dozen mission hospitals in different parts of the world. The day of medical missions had not yet come; and there was difficulty in adequately maintaining the staff even of those few. It was some years later that the principle was adopted of appointing two doctors to each hospital, a step due largely to the initiative of Prebendary Wigram.

The one-man staff policy was costly to health and energy, and fatal to continuity; but one could hardly expect a missionary committee, consisting chiefly of clergymen, to recognize the professional aspect of mission hospitals—*that* could only come with a modified home organization, on which laymen, and especially doctors, were well represented, raising special funds for the purpose. The Medical Auxiliary of the C.M.S. was not started till 1891, and it has wonderfully vindicated its position, both in raising funds and in attracting well-qualified medical men and women as agents. My predecessor and colleague, Dr. Downes, was one of the first to see the need of a special home organization, and to advocate it. As soon as he settled in Eastbourne

he started a medical auxiliary to help the Kashmir Mission Hospital, which served as a model for similar work in other parts of England; and he was probably more influential in the evolution of medical missions than has been recognized.

At the time of my arrival in the Punjab there were several leading doctors connected with the Indian medical service who took a keen interest in medical missions, and were active members of a local committee called the Punjab Medical Missionary Association. Among these were Surgeon-General Dallas, the Inspector-General of the Province, and Brigade-Surgeon Burton Browne, principal of the Lahore Medical College. I was a guest of the latter, who after his retirement was a regular member of the Medical Board of the C.M.S. in London. I spent my first few weeks in India seeing the country, and made use of introductions to friends at Bombay, Ajmere, Jeypore, and Delhi. India stirrred me deeply from the first, and each place I saw seemed to have special attractions and openings for missionary work. At Bombay I accompanied a Mr. Mody (a converted Parsi) to the open-air service which he then daily carried on in the evening opposite the old Money School; and at his invitation I spoke for a few minutes in English, which many of the Indian listeners appeared to understand.

At Ajmere I was a guest of the Rev. Dr. Husband, who had been for many years in charge of the mission hospital there, and also President of the Municipality. At the time of the Decennial Missionary Conference in Calcutta (1892) he received a C.I.E., and when the Indian Medical Missionary Association was founded he was elected the first president, an honour in which I succeeded him many years after. At Jeypore Mr. Traill took me to call on Brahmin priests and other Hindu friends. We went on an elephant to Ambhair, the ancient deserted capital. The Rev. John Traill was a very attractive type of missionary, scholarly,

and sympathetic with Indian ways of thought; much of his work was done by personal intercourse with high-caste gentlemen and priests.

At Delhi I was a guest of the veteran Baptist missionary, Mr. Smith, who had been a soldier at the time of the Mutiny. I met many people who had been through it. Mr. Bickersteth was then the head of the Cambridge Mission; his influence was felt in fostering that friendly co-operation with other Churches which has long characterized the Delhi Mission. He invited me to stay with the Brotherhood, an invitation I gladly accepted on a subsequent occasion; but it is one of the privileges of missionaries that the camaraderie extends beyond the bounds of their own Society and Church, and I found Baptists and Presbyterians as ready to show hospitality to me as to men of their own Church.

Amritsar was then the headquarters of the C.M.S., as the Rev. Robert Clark, the secretary of the mission, who had already completed thirty years' service lived there. This was my station for a few months, while beginning to learn the language; and many a time since have I revisited that interesting city, sometimes assisting in the medical mission work in the city. Amritsar was a good choice for our mission headquarters, as a great commercial city, whose bazaars are thronged by tribesmen from all parts of the Northern Himalaya, and by pilgrims from Central Asia, as well as by merchants from Afghanistan, and traders from every town of North India. It is the Holy City of the Sikhs, with the Golden Temple in its midst where great multitudes assemble for *mêlas*, and exercises a profound influence upon thousands of villages. Robert Clark had the instincts of a statesman as well as of a missionary pioneer. It was he who first planned the Kashmir Mission, and explored the whole region in a tour through Ladak and Baltistan, where few Europeans had been up to that time (1854). He was the first missionary to the Afghans, and

worked for some years in Peshawar, living in the city. Such work was then considered by many of the Political officers and by nearly all military men to be impossible; one or two offered subscriptions for revolvers for the missionaries. It is noteworthy that while many officers have fallen victims to the knife of the fanatical Ghazi, no missionary has ever been attacked in the fifty years which have elapsed, though many of us have travelled about the frontier unescorted and unarmed amongst bigoted and wild tribesmen.

When Clark became secretary he initiated the medical missionary policy which has been so amply vindicated by events; planting mission hospitals at the strategic points of the frontier—Peshawar, Bannu, Dera Ismail Khan, and Quetta.

At the time of my arrival in Amritsar a terrible epidemic of choleraic malaria was just dying down. It was reported that 40,000 people had died in three months. Fever was still rife, and I got my first attack in a few days. Captain Joshua Duke, I.M.S., the Civil surgeon, came to see me, and a few days later I was called to treat him for the same complaint, and replaced him in medical charge for ten days, while he took a change. For me it was a valuable bit of experience—operating, visiting the jail, and so on.

Amritsar is a striking instance of the evil effects of irrigation upon the health of a population. The over-abundant supply of canal water to a previously dry district caused water-logging of the soil, with attendant malaria. Outside the walls of the city on all sides were extensive excavations from which soil had been taken for building purposes; these became filled with putrescent liquid of all kinds, giving off the most horrible effluvium. In subsequent years something has been done to reclaim these poisonous tanks, but still some remain. Among other places in the neighbourhood I visited Tarn-taran, a holy city of the Sikhs, where there was a large leper colony. The lepers were partly supported at Government expense,

living in little huts, a mile from the town. But they supplemented the monthly dole by begging at the temple, and took pleasure trips to the chief *mêlas* of the Punjab. A gentleman said to a sturdy dilapidated individual, "What work do you do?" He replied, "I belong, sir, to the *asking* profession." This is a widely spread profession in India. An Indian gentlemen, recently speaking of the need of charity organization, said that twenty crores of rupees (£13,000,000) are spent on beggars in India annually. Of these lepers are not the least needy, but are a very undesirable portion. They should all be segregated, but at present there is not any adequate legislation nor is there sufficient accommodation in asylums. The missions are doing their best to meet the need, largely aided by Government funds. Tarn-taran now has a model asylum, thanks to the thirty years' work of the Rev. E. Guilford, whose selfless efforts have so endeared him to the Sikh community of that district. Little clay statuettes of him may be bought in the bazaar there. One man said, "I worship Providence and Padri Guilford." Thirty years ago Christianity hardly had a footing in the Punjab, for though it had gained a few very noteworthy converts such as Maulvie Imodudin, at one time a leading Mohammedan moullah and strong controversialist, Kaiser Singh, a Sikh priest, or Khurak Singh the ascetic, there were as yet no signs of that mass movement of the depressed classes which has since set in in favour of Christianity.

There were probably only five thousand Indian Christians in the whole Province (which then included the Frontier), although the missions had been established in the fifties. Since then each decade has shown startling progress, up to the last census estimate of 150,000 Christians. Most of these converts have been from the villages, though rural districts have received disproportionately little attention from most of the missions. In the C.M.S not more than one-tenth of the staff is devoted to pastoral or evangelistic

work in villages. The Indian Church will have to reverse this proportion, and place nine-tenths of its agents away from the large towns. The few months I spent in the Punjab gave me a good start at the Urdu language and some insight into Indian problems and the conditions of hospital work.

In clear weather in winter one can see from Amritsar, low down on the northern horizon, a serrated line of scintillating snow peaks, flushing rose-colour evening after evening; the sight of these always drew me, and early in February a letter from my future colleague that he was crippled with phlebitis started me on my journey, though the road was not supposed to be open so early in the spring.

CHAPTER II

A JOURNEY TO KASHMIR. 1882

THIRTY years ago there was a *tonga* road as far as Murree, which was already an important hill-station, but the *tonga* did not run in winter as Murree was practically deserted and no one went to Kashmir at that season. So I rode my own pony, stage by stage, while my luggage came on by *ekkas* to Tret, and from there by mules. This was my first introduction to the outer hills, which in the early spring are beautiful with the fresh green foliage of the jungle and bright roses in gardens. The odours of the usual roadside villages are a curious compound of stable refuse, cow-dung fires, hookah fumes, and bazaar spices. But even in the dark a traveller might recognize Chattar by the luscious smell from the gardens, where the rich, heavy scent of loquats and orange-blossom fills the air.

On one side is a small swift-flowing river, full from the melting snows. Low hills covered with green scrub rise abruptly on all sides, and reminded me of the Trossachs. I scrambled up one of these, disdaining woodcutters' tracks, and found the steep hill-side, with its big boulders and dense thickets, quite difficult to ascend. I had to force my way up, crawling under the entangled branches. The summit was no great height, but one looked across to the ridges in front, clad with the bold outlines of the long-needled pines, rising to Murree, where the snow still lay, and right away east to the lofty serrated ridge of the Pir Panjal, seeming to penetrate the sky.

Next day I reached Murree, which was deep in snow and seemed to be hibernating. The *dak* bungalow was closed; and the houses were swathed with mats and other devices for preventing the snow from blocking chimneys and penetrating the windows. The appearance was suggestive of curl-papers and nightcaps. In some places the snow had slid off the roofs and drifted against a house to the level of the first story, or even to the eaves of the roof. The railings at the side of the narrow bridle-paths were scarcely visible. It was indeed a buried snow city; and the prospects of getting food and shelter seemed somewhat remote. But I steered up the hill, and by good fortune met a tall *sahib* striding down the hill, to whom I made known my plight. Most genially did he invite me to spend the night at the club; and on the way there I discovered that he was the secretary of it. So instead of spending the night in an open verandah or a native hut, I was soon in the lap of such luxury as Murree could then rise to, with the only English folk on that snowy hilltop. One was the garrison staff-officer, another the medical officer, and the only other guest was Lord Wenlock, afterwards a distinguished Governor of the "Benighted Province." The evening passed with interesting scraps of reminiscence of travel and sport and a sort of examination in geographical knowledge, led by the future Governor. "If a line were drawn due east and west from this place, what towns would it pass near?" Some similar questions on the counties of England and the States of America plucked me, and I retired to bed to confuse the avalanches of snow off the roof with curious landslides on the map of England; and woke to the beauty of the sun shining through great icicles.

Mr. Mitchell and Lord Wenlock came part of the way down the hill, walking single file in the narrow footpath trodden in the deep snow, the former pointing out the distant peaks of Shamshibri, with which he was familiar, where he had shot many a markhor and ibex. The old

bridle-path descended by Dewal through a magnificent mixed forest of pines, spruce, chestnut, and ilex; and after my friends turned back I felt the glamour of the woods gripping me. Below to the left were purple depths, thousands of feet down, out of which the pine battalions came marching with bayonets fixed. Across the ravine rose the steep rocks and dazzling snows of "The Gullies." At one place I came upon a patch of pink snow, due not to the microscopic lichen which occasionally causes this phenomenon, but to the drops of reddish sap from trees overhanging the path. Next day we dropped down to the Jhelum River and crossed it by a suspension bridge, since washed away by the flood of 1893, which rose 30 feet above the usual high summer level. The banks are here a hundred yards apart, so the volume of water which came down on that occasion must have been immense. It was an extraordinary change to descend from the snowy heights of Murree to the tropical valley, which is a veritable suntrap. The vegetation at Kohala, by the bridge, includes bananas, and one or two date-palms may be seen.

I had heard much about the new cart-road to Kashmir of which the construction was beginning, and I was now introduced to it. A mile along its well-engineered level breadth led to the face of the cliff which was being tunnelled. There was no passage below or round; the old bridle-path had disappeared, having been blasted away, and the new road only existed in short sections, cut in the face of these great cliffs. So we had to toil up some precarious hill paths, and make our way along the slopes, many hundreds of feet above the river, by village paths winding up and down over the spurs in devious routes. It was afternoon before we reached the plateau of Chattar, where the road engineer, Mr. Alexander Atkinson, was then living with his family. His small son had a young bear cub as a pet, an amusing and pretty little creature, with its long, soft black fur and twinkling eyes. I believe

it became somewhat savage a few years later and had to be shot. The engineer was constructing a bridge over the Agar Nadi, not far from his house. In winter it is easily fordable, but during the rains it may become a fierce flood 50 yards wide; and the bridges have been twice swept away. My baggage ponies went through with the water nearly up to their girths. For a few miles more we enjoyed short sections of new road, but when we left it behind altogether the old bridle-path improved. How often is this the case in life! The new road breaks up the old paths which had been used by many generations and had been constructed with much toil and some skill; and for a time the unfinished new road, with its frequent landslips and falling boulders, is far less convenient than the old bridle-path, so that short-sighted people say, Wherefore is all this waste of money?

The villagers along the route, who for fifteen years saw surveying parties at work, and the engineers building themselves dwelling-houses, probably had their jokes at the expense of these *sahibs* who did themselves well, and until the day of through traffic scoffed at the idea of any practical outcome, and pointed out that in many parts the road was far worse, and certainly more lengthy than the old-fashioned paths. It seems scarcely necessary to elaborate the parallel, showing how modern civilization or progressive religious ideas often destroy what is useful and to some extent good before any constructive value appears; and that immature judgment upon semi-developed tasks only confuses the issues.

Some such philosophy occurred to me when I left the chaos of cart-road construction for the comfort of a bridle-path, where my steed came in useful. I sat down to sketch at a picturesque corner near Domel, and allowed my baggage ponies to pass in front. An hour later I came upon a scene—the animals in a bunch beyond a narrow broken bit of path, while fragments of the pack of one were

being salvaged from a precipitous gulley in which were scattered clothes, books, medicines, and fruit in various stages of progress to the river, down which many of the oranges were floating on their return journey to the Punjab. The explanation was simple: the pony had slipped with its hind legs over the cliff, and the fastenings of its load had given way. The only wonder was that no accident had previously occurred where the road had been worse!

Among the damaged articles was a tin of oil which leaked persistently. Oil was a valuable commodity in those days, so I sent back to the Domel bazaar to fetch a tinsmith to do repairs, leaving my old servant, Jamal Ju, in charge, while I leïsurely strolled after the advance guard. As I passed through the thicket I saw to my astonishment one pony standing in an open glade a little way ahead, with my mule trunks on the ground by it, open. As quickly as possible I took cover and with my field-glasses scanned the position. Two mule-men then emerged from a wood with a bundle of my things in their arms, which they stuffed away in the trunks, quickly replaced these on the pony, and drove it on. Having identified the men, I followed at my leisure, and on arrival at the next rest-house examined my boxes to see what was missing. The sum total of the loss seemed to be a turquoise scarf-pin of no great intrinsic value. However, as soon as my faithful old factotum, Jamal Ju, arrived, a criminal investigation was set on foot. He took the part of public prosecutor and I of judge as well as plantiff, while the muleteers acted the part of injured innocence. It was quite an amusing scene. The old grey-bearded servant denounced the villainy of the muleteers in general and of these in particular; and how much more wicked were these to have defrauded such a generous protector of the poor! Perhaps also my beardless chin and youth played their part in the peroration, when all the powers of the State and of the British Resident were invoked to punish such

a crime. The chief culprit, a sallow, lanky Punjabi with a black beard, protested his ignorance of any theft; the boxes had indeed fallen off, and the lid had burst open, and he had replaced all the *sahib's asbáb*, for of what use could any of it be to him? The judge's summing-up was brief and emphatic: "You ought to be sent to prison, but this time I will let you off if the missing scarf-pin is replaced; but if not, I shall cut the full value from your wages at the end of the journey and not give you any bakshish." With this terrible threat the erring *markobáns*, or mule-men, were sent off. When parting from them a week later, they still asserted their virtue, and begged for bakshish, but I sternly fined them as a matter of discipline.

Day by day the scenery got wilder, and my spirits rose with the sense of freedom and the exhilaration of the daily march. Only a year before I had been a house-surgeon in the grey metropolis of the North, living amongst bricks and mortar, and often working in the slums, with scarcely a sight of the sun for months in winter, except on Saturday afternoons. This trip brought back to me the fragrant memories of Swiss and Highland tours, when I had tramped, knapsack on back, in modest pedestrian fashion. Now I rode my own spirited country-bred pony at the head of my own caravan, amidst scenery which is nearly Alpine in scale, and was in early spring thoroughly Alpine in appearance, with 10,000 feet or more of snowy peaks rising on either side. Much of one's sense of beauty depends upon the emphasis of contrasts. For months I had been living in the level horizons and treeless wastes of Punjab; now every corner opened up fresh vistas of snow ridges, clad on their northern aspects with dense forests of the Himalayan oak and the blue pine. Above was a region of ice and snow, while down in the river gorge there was a rich semi-tropical vegetation with many flowering bushes, and fields dotted over even

in February with tulips and narcissus. In the wet mossy banks were growing clusters of mauve primulas, while the cliffs were often draped with magnificent hanging *Terris pellucida* and other ferns.

Strange and interesting birds sang in the thickets. Sometimes a bird-of-paradise fly-catcher, with its very long, waving silvery tail, would dart across a glade, or the orange bullfinch, one of the gayest of birds, would sit on a branch piping his loudest, but quite outvoiced by the rich, fluty notes of the dark-blue thrush, commonly called a blackbird, who flits about the rocks where the river rapids are fiercest, and tries to outsing the roar of the torrent.

LEVAVI OCULOS.

Let me lie by a roaring river! let me lie down by the seething streams!
There would I sleep my sleep for ever; there would I dream my long, long dreams.
Out of the rocks and the rapids' riot, out of the murmur of waters full,
Surely my soul shall be soothed and quiet, surely shall I have rest from all!
Wrapt all round with the scent of flowers, robed with green of the living grass,
There shall I bless the golden hours, there shall I feel all sorrow pass;
Yea! as the flying clouds do scatter; yea! as the mists melt far away,
This shall seem but a little matter, this that troubles so much to-day.

S. G. DUNN.

More than once I saw monkeys scrambling along the wooded banks, swinging or springing from branch to branch, and picking the old berries. They usually kept out of stone-throw, but if attacked they soon prove themselves adepts at the hurling of missiles. They are either getting rarer nowadays or have greater dread of human beings. Perhaps they are more shot at now that guns are common. The weapons I saw on that first journey were chiefly of the matchlock type. All along the valley of the Jhelum there

are old forts, now mere crumbling ruins, dismantled and deserted; but thirty years ago there would be a Sikh or Dogra *jemadar* at each, with half a dozen irregulars, of the bandit type: and the various titular Rajahs of the once powerful and predatory Kakar and Bamba tribes until recently kept a few armed retainers, with quaint firearms suitable for museums, as a token of their rank.

These were the gentry who for ages blocked this route into Kashmir. Jacquemont, the famous French naturalist, could only travel along the Jhelum with a special escort; and when a high English official desired to travel down from Baramulla, a petty hill Rajah in the Káj Nag demanded five thousand rupees as a toll on the caravan. Rather than pay such an exorbitant sum the traveller returned to Srinagar, and went south by the Pir Panjal pass.

Jamal Ju pointed out an old fort on the opposite side of the river below Chakoti as the scene of a battle between Rajah Ranjit Singh's troops and the hillmen, and described how booby traps were prepared, by piling up heaps of rock above a stone shoot, so that they could be released when the Sikh troops were crossing the gulley below. When the avalanche of stones swept down, and an advance guard had become separated from the main body, then the hillmen would dash down, sword in hand, and complete the confusion. Ranjit Singh or his generals penetrated as far as Uri: probably only on the south bank, and they had to clear the summits of the lower ranges and the dense forests as they advanced. Rajah Dhiyan Singh, the eldest of the Jammu family, was already master of Poonch, and so he was in a good position to assist. But there must have been some gallant hand-to-hand fighting.

The river gorge is magnificent in some parts, with abrupt reddish cliffs on each side. After leaving Ghari there are no levels by the river; the few scattered hamlets are on plateaux many hundreds of feet above it; and just as the main river has cut its deep trough in the hard Murree

sandstone, so have the side streams worn ravines through the boulder formations and conglomerates of each lateral valley. The old bridle-path kept high up to avoid these cliffs, but had to descend to cross the side *nullahs*, so one got plenty of exercise in the daily stage. Now the cart-road has been splendidly engineered along the face of the cliffs, greatly shortening the distances. But while the traveller does not get as much variety of scenery as formerly, he has other varieties in the way of landslips and rock avalanches, of which more anon. One day we struck up from the river bank for some 800 feet by a steep path, then dropped to a side *nullah*, then climbed still higher on the further side, up among the scattered forest of pines, longifolia, and ilex, with wonderful views of the snow peaks, which from this height showed up grandly above all the lower and nearer ranges. It was when descending towards the main river again that we came to a very narrow place where the path had broken away; and while crossing it my pony's hind legs broke away the edge, and he only saved himself by a sudden struggle. I should probably have flung myself clear had he fallen, but the height, some 300 feet, looked a bit giddy. The following year, when going to the Punjab, at the identical spot the same thing happened, and on the third journey I wondered whether the proverbial third attempt would be decisive, but the path had been better repaired, and we rode over without incident. It is also true that my trusty grey Lancelot was getting more experience in the hills.

At Uri there was a very heavy fall of snow, which detained me for a day in the dilapidated rest-house. None of the fireplaces were constructed with a view to smoke going up the chimney. It is true that when the blazing sticks were all standing on end with flames a foot or two up the chimney the smoke was not troublesome; but such bright and flaring efforts seldom continued long, for the wood was damp; and then a dense cloud of smoke would hide the

upper half of the walls, and I was driven to opening the door and the wooden shutters which apologized for windows, and to sit on the floor below the smoke-level, until my weeping eyes regained normal sensations. Under such circumstances one's thickest garments were useful; and I had a huge sable-lined overcoat given me by the late Bishop Hannington, which stood me in good stead.

Jamal Ju came to the fore with tales of the siege of Delhi. He told me how his master (in 1857) was Lieutenant Peyton, and that at the time of the outbreak they were in the wilds of Western Tibet, where Peyton was exploring. On the way he had been purchasing timber in the valley of the Beas. Here I interposed, "If he was sent to purchase timber, what was he doing in Tibet, the least wooded country in the world?"

"Well, *sahib*, my master had thousands of rupees with him; and where there were forests he bought timber, and where there were none he shot big game."

Perhaps the big game may have been of a diplomatic nature: anyhow, hearing that the Maharajah Gulab Singh had declared on the side of the British, Lieutenant Peyton marched down through Kashmir and joined the small forces on the Ridge, about the same time as John Nicholson arrived. The old man's account was not detailed, and he only knew the names of a few of the chief actors: but he described the hardships of the life crowded in small tents or leafy bivouacs and exposed to incessant annoyance from the enemy's snipers. He had a very poor opinion of Pandy as a fighting man, and told how the *sahibs* ate their meals ready to rush out pistol in hand to drive off the mutineers. It should be remembered that there was a Kashmir contingent of several thousands, which fought bravely at the time of the final assault, and to a considerable extent drew off the pressure from the direction of the Kashmir Gate, where the real attack was to take place. After the capture Lieutenant Peyton was sent up to

Peshawar, and it was probably on the way up that Jamal Ju distinguished himself by saving a soldier from drowning. The Indus must have always been a peril in times of flood, when it had to be crossed by ferry above Attock. A ferry-boat was upset, and Jamal, who was a strong swimmer, went to the rescue of one of the Englishmen and helped to haul him ashore. He seems to have wandered all over the Himalayas with sporting officers and to have had his full share of adventures. Horses he would never ride; but on one occasion, at the command of his Colonel Sahib, he did so, and the animal ran away, the saddle turned round, and he was dragged ignominiously by the foot. This terminated any ambitions towards horsemanship.

These scraps of adventure, told me at various times as we tramped along, helped to prevent any monotony.

Leaving Uri, where quite a number of Maharajah's sepoys and others were held up by the weather, we made fresh tracks in the knee-deep snow, and kept an eye on the slopes above for signs of likely avalanches, for plenty had been falling for two previous days. The sun, which now came out, transformed the Jhelum Valley into a fairy scene. The magnificent deodar forests were sprinkled with the bright shining crystals, and the deep violet shadows of the trees contrasted strongly with the dazzling brilliance, almost flame colour, of the snow slopes. I shall never forget my first panorama of the Kashmir Valley. The old path led across some hills overlooking Baramulla, and so the approach was far more effective and grand than by the modern cart-road, which follows the windings of the river. That February afternoon was gorgeous in its effects of cloud and sunshine; great cumuli were piled up on the range 20 miles to the north, to an enormous height, above even the lofty summit of Haramouk, which is 17,000 feet high. The billowy masses, lit up orange and pink by the afternoon sun, may well be more than double the

height of the mountains, which become a deep velvety purple in the shadow; but the snow-capped ridges and glaciers radiate light with greater brilliancy than the brightest cloud. The great expanse of the Wular Lake reflects all this glory, and one overlooks 50 miles of emerald valley, dotted with villages. I stood long entranced by the scene, and eagerly trying to discern the valleys leading up into the still wilder regions of Gilgit and Ladak. That evening I began my first boat journey on the Jhelum.

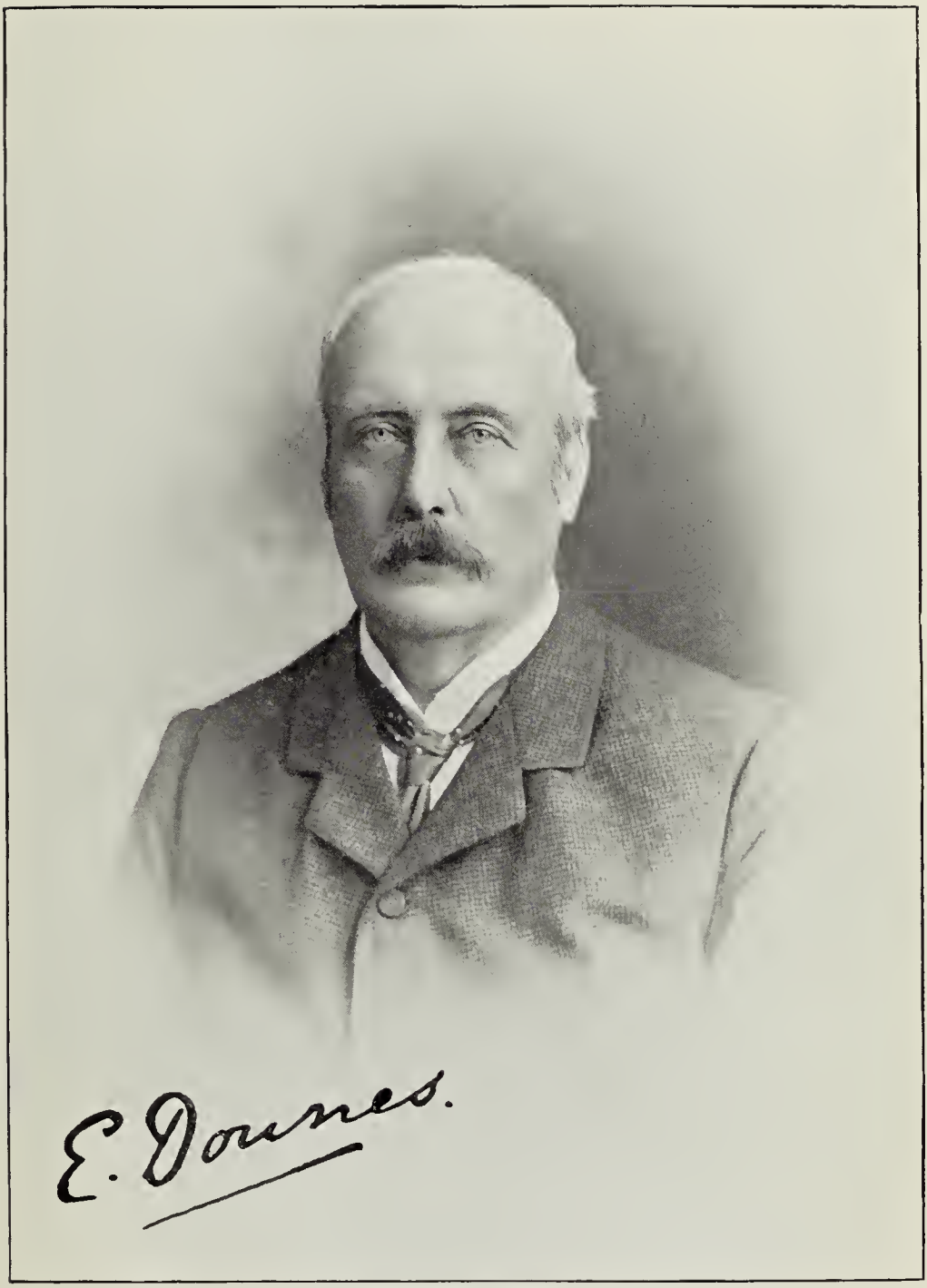
CHAPTER III

DR. EDMUND DOWNES AND KAFIRISTAN

IN the late seventies the name of Dr. Downes was well known in North India as that of a bold and skilful surgeon. He only retired from mission work on account of failing health, and I was called to succeed him. He stayed on at considerable personal inconvenience to give me a good start, and as an inmate of his house for six months I knew him intimately; it was a friendship which never flickered in thirty years.

He retired to Eastbourne, where for many years he carried on a leisurely practice, largely devoting himself to work among the poor, especially in connection with housing. Few men in a generation are so widely lamented by their townsfolk as he was when his home-call came in 1911.

His was a varied career. At Woolwich he was distinguished as a runner and all-round athlete. In India he would have made his mark as a gunner, but felt the attraction of civil work, and was appointed to carry out surveys at Quetta and elsewhere. Meanwhile he was converted, and full of missionary enthusiasm, which was hampered in Government service; he sent in his papers, and at first joined the Scotch mission, then recently started in Chamba, where he is still remembered. The present chief medical officer, Dr. Barkudar Khan, so revered even by those of other faiths, was drawn to Christ largely through Downes's influence. How interesting it would



Dr. Edmund Downes.

be to trace down the pedigree of faith to younger generations!

At the desire of his father Edmund Downes transferred his services to the Church Missionary Society and was sent to Peshawar. It was from there he started upon an adventure which rang through North India.

He strongly felt the call to the regions beyond, especially to Central Asia, both as the nursery of nations and as a stronghold of Islam. The story may be told chiefly in his own words:

"When I seriously thought of entering one of these countries, I had carefully to consider where a door was opened. Several plans were suggested and thought over, but Kafiristan appeared to be the place beyond our frontier most open to the Christian missionary. The Kafirs were situated in the very centre of Mohammedanism, which had tried in vain, by force and persuasion, for a thousand years, to convert them to the religion of the false prophet. They had no fixed religion; they were said to wish to have communication with Englishmen; they had on two occasions asked the Rev. R. Clark to go there as a missionary, or send an English missionary; he had been unable from ill-health and other causes to do either, but had sent two Afghan Christians; they had been kindly received, and their words had been welcomed. Why not go there? The country was within 200 miles of our frontier, it surely could not be hard to reach it. These wild tribes always have been found amenable to the Gospel: would these prove an exception? Surely not! For why had they asked for missionaries? And, should they accept Christianity, would not the surrounding Mohammedan nations be forced to acknowledge that the Lord He is the God? and that, where the sword failed, the Cross was triumphant? Would not the light shine over the deep darkness around, and, hand in hand with civilization,

might we not expect to see the religion of Jesus enter the barbarous, cruel tribes of Central Asia?

"These are bold thoughts and ideas; but something of the kind entered my mind as I thought over the subject; and I knew well that I could not accomplish this or any part of it, but I remembered that 'not by might, nor by power, but by My Spirit, said the Lord of Hosts.' I therefore resolved to attempt to cross our frontier and enter Kafiristan.

"I started on the 16th April, 1873. It was arranged that I should travel as a native, and my knowledge of Persian enabled me to sustain the character without fear of detection, since I was not going to pass through Persian-speaking countries. I made but one condition with my guide before starting, and that was that I would not say that I was a Mohammedan, or directly deny that I was an Englishman. I also directed him to tell the truth, and assured him that I was ready to bear the consequences of his doing so. I thus quieted my conscience, even should he tell a lie during our journey.

"Starting from Peshawar was a difficulty; for we knew full well that if I was detected while in English territory, information would be given to the Government officers, who, we feared, would not allow me to proceed, or, worse still, that the news of my departure might follow me into the hills, awakening suspicion in places where disguise might be a condition of life.

"The morning had hardly dawned when I left Peshawar. I rode on a pony with a native saddle and bridle, in my Persian dress. We left the city, and soon caught my guide, his servant and baggage pony; we did not travel along the main roads, but through village paths, in order to attract as little attention as possible. We passed very few people on the way, and received the salutation, '*Al salam Alaikum*' (peace be upon you); to which we replied '*Wa Alaikum al salam*' and passed on unnoticed.

"There is a strange story, which shows the inaccuracy of the reports which have been circulated regarding my expedition, that I was known by taking out my watch; it so happened that I had left my watch behind in Peshawar, and therefore had none to take out, had I wished to do so. After this I placed some *surma* (a preparation of antimony in use among Mohammedans) in my eyes, which assisted my disguise marvellously.

"I passed the fort of Michnee and soon got out of English territory. It was fearfully hot. We passed through a dry, barren piece of flat country for about a mile, and afterwards began ascending the hill. We left the valley of the Kabul River, and took a direction at about sixty degrees from it. After following for about four miles a dry *nullah* or watercourse, enclosed on both sides by burning rocks and possessing next to no vegetation, we left the *nullah* and commenced a more steep ascent up the side of the hill. The road was bad, but passable for our hill ponies, though we ourselves found it better to walk a great part of the way. After ascending the hills we obtained a good view of the plains. I suppose that we ascended about 3,000 feet.

"We travelled some three miles over this barren hill, and then we came in sight of the village of Sahib China. I had my doubts about stopping in the village; I should have preferred avoiding it and staying the night by the roadside; but I left myself in the hands of my guide. He made his servant take out a gong to beat in front of us, and a hillman, who accompanied us, went before with a tall bamboo, round the whole length of which some green cloth was wrapped. This was a sign that the 'Sahib Zada' (my guide) had arrived, and the people began to collect to receive us. We asked for a spare house, in which to pass the night; but there was not one available, and we were told to stop near the *musjid* (mosque), and that if it rained we might spend the night inside. The Sahib Zada

explained that I was his friend and that I knew Persian, but very little Pushtoo (the Afghan tongue); that I was not well, and tired with the journey. I was not therefore expected to enter the *musjid* or to engage in prayers. Etiquette prevented the villagers from troubling me with any questions, as I was a friend of the Sahib Zada; a *charpoy* (wooden bedstead) was soon procured for me, on which I sat down, and getting a rug spread on it, lay at full length, and then, covering my face with my *pagri*, went fast asleep.

"I slept till after sunset. When I awoke, I heard some very earnest conversation going on between the Sahib Zada and villagers, but it was in an undertone, and I could not hear what they said. Presently the Sahib Zada sent my servant to say that we were discovered—what were we to do? My answer was, 'Go on, if possible; if not, we must return.'

"It appeared that a man had come up the hill; that he had been sent from Peshawar by the Commissioner to bring us back; that the native official, who had sent him, had told him that Rs. 400 would be given if I were brought back, and Rs. 400 would be given for the Sahib Zada: thus Rs. 800 reward in all was offered for our apprehension. He knew none of the particulars, but had denied the fact of my being a European when the subject was mentioned to him, and desired me to deny it, if asked. I reminded him of my condition, and said that under no circumstances would I do so.

"It was now about nine o'clock, and was very dark, the sky being cloudy and there being no moon. The villagers, who had been with us till a short time before, had retired to their homes. While giving instructions to the servants, I was standing with my back to two little trees, beyond which the ground fell towards the cultivated land in the valley below; our ponies were tied to these trees. Unobserved by me, my guide, or the two servants, the villagers

crept up the hill, through and round the ponies; and all at once several men seized my hands and in one moment tied them behind my back. The Sahib Zada and the servants remonstrated, but were rudely pushed to one side; and nearly the whole of the villagers surrounded me and were pressing on me from all sides. I no longer kept up the appearance of not understanding Pushtoo, but asked them in that language what they were doing, and said that such a proceeding towards their guest was unworthy of Pathans.

"For some time there was such a noise and diversity of opinion that I could not tell what was going to be done. A suspicion of intended murder at first entered my mind, but in a few minutes I saw that they did not mean that; some shouted to others to take me away to another part of the village, and the idea struck me that they might take me into the interior and demand a large ransom for me: an idea of which I did not altogether disapprove, for Government, by sending men after me in this way, had taken the responsibility upon themselves and would have been bound to pay the ransom from public funds. After a while the uproar subsided, and one or two, pushing the others aside, made a little room. One man told me not to be afraid. I assured him that I was not in the least afraid. He then asked me to sit down on my *charpoy*, and he sat down also. Here it was that they kindly offered to take me anywhere I wished to go, if I was a murderer who had run away from the British Government! I unfortunately was unable to claim the honour of being a murderer, and had to submit to a cross-examination, in which I informed them of my object in coming and who I was. They did not at first believe me, though afterwards they did, when they asked me several questions about the Christian religion of which I professed to be a teacher. They continued to say that they had been informed by the native police official of Peshawar that I had pistols and other arms with me, and that they were to

be careful lest I either killed any of them or myself; they had, therefore, tied my hands, and now they demanded my arms. This piece of information was about as correct as the story of the watch. I assured them that I had no arms; my word was not believed, and they proceeded to search me from head to foot. A *lungi* (a sort of shawl) which was tied around my waist was taken away, and a few things out of my pockets; at last, while continuing the search, some one came across my money (nearly 100 rupees in gold); evident delight was manifested, and the money was taken. A young man, or rather a boy, seeing every one helping himself, became bold enough to begin pulling my *pagri* off my head; I thought that a general 'loot' would have commenced, but several of the villagers, at this juncture, took my part; the young lad was driven off, and, I trust, learned for the future that the persons of guests are sacred. Those who were taking my part began to abuse the others in a way that only Pathans can, and demanded my release. Several objected, but my friends insisted, and my hands were untied. The villagers were full of apologies, placing all the blame of what had happened on the officials of our Government. In the afternoon the order came that they were to take me back at once to Michnee. I had tried to induce them to take me on into the interior, and offered as much as Rs. 200 in addition to the Rs. 100 they had taken, taking the risk of my life and property, if they would carry me to my journey's end; but Rs. 800 had been promised by the above-mentioned generous native official for bringing me back, and they were not to be persuaded. This imaginary reward of Rs. 800 did me good service: by means of it I got back my Rs. 100 and nearly everything that had been taken from me. Thus ended my first attempt to enter Kafiristan. I hardly can explain how I was discovered and thus foiled. All I know for certain is that information was given by one of his *chaprasees* to the Deputy Commissioner on the night before

I started that a European was going to leave the city next day in disguise. I can only suppose that an Armenian from whose house I started did not sufficiently impress upon his servants the necessity of keeping the whole matter a secret. Probably they spoke about it in the hearing of the *chaprasee* and thus the secret was divulged."

This was the quest that seemed to me a sort of legacy from my friend. It was the impelling motive in one or two of my earlier journeys. But I was not willing to go in disguise, as it would involve too much duplicity with little likelihood of achieving my purpose. With the opening of Chitral to a British Protectorate for a time it seemed possible that Kafiristan would also be eventually included within the red frontier line, and the expedition of Col. Lockhart and Woodthorpe excited my hopes.

Still I was in no sense free for an adventurous expedition six hundred miles away to the west; for my hospital and other important work nearer home must not be neglected, and the lessons of missionary strategy showed the duty of concentration and continuity rather than of sporadic knight-errant efforts. At the time of the siege of Chitral I accompanied the army across the Malakand, and went into Swat, but private information from high quarters showed that Kafiristan was being ceded to the Amir, and the way into it definitely blocked to any Britisher.

What I could not attempt personally may perhaps be achieved by another. Many years ago a young Kafir convert became our protégé, and was trained in medicine with a view to frontier openings. He is a delightful fellow, modest and manly, who has won for himself a good reputation among some of the frontier tribes. The opening has come for him, and he has bravely availed himself of it, and is among his own people; the result is yet to be seen.

CHAPTER IV

SRINAGAR IN THE EIGHTIES

PERCHED on an outjutting spur of the Takht-i-Suliman, the Kashmir Mission Hospital commands a view of a vale of purple glens and snow-cold streams.

> "Broad meadows lush with verdure, flower, and fruit,
> The broad-leafed maple towering in his pride,
> The temple's noble ruin on the height,
> The poplar lines that mark the homestead there,
> Calm lakes that bear the lotus on their breast,
> A hundred miles of snow-clad mountain peak
> On either side uprear their heads to heaven,
> And, flecked with light and shade and yellow foam,
> Broad-bosomed Jhelum wends his stately way."

Within the circle of that snowy range and in deep valleys far beyond dwell two million souls for whom the red cross flag waving over the hospital has a message of "peace and goodwill to men," and to hundreds of thousands that goodwill has been practically manifested.

At the foot of the Kashmir mountains the copious snow-fed rivers are tapped by ancient canals which distribute the water to the plateaux and valleys. But the rivers are more beautiful higher up, where the waters foam through narrow gorges and force their way over obstructing rocks. And we follow it up into narrow pine-clad glens, and again into grassy uplands, the summer grazing grounds which the cattle love, and again up till we come to the snow-bed under which issues the first little trickling

THE MISSION HOSPITAL, SRINAGAR.

stream. So now, when the mission work has spread into many channels, with such potency for good, it is interesting to look back before the time of the splendid High School, when there were no ladies visiting the women, no nurses, no education, no Kashmiri literature except a few rare manuscripts. And I trace back the stream another stage to the time of my predecessors, before permission was granted for Europeans to reside in Kashmir during the winter months, and when the waters struggled through the narrow channels of obstructing officialdom and were impeded by the rocks of bigotry and prejudice.

And yet higher up, like some of the mountain streams which, after attaining some size, disappear under their stony beds to reappear in full volume lower down, we come to the sources of the mission under Clark and Elmslie, whose work seemed so full of promise. Elmslie died prematurely, but his life was not in vain: though for a time the work ceased, the current still flowed underground. His successor, Dr. Theodore Maxwell, was a nephew of General John Nicholson, the hero of Delhi, who had been one of the first political officers in Kashmir and a personal friend of the Maharajah Ranbir Singh. So the reopening of the work was under much more favourable conditions, and the Maharajah gave a house for the doctor, that in which I now live, and a fine site for the hospital upon the northern slopes of the Rustum Gaddi hill, a spur of the Takht-i-Suliman.

The health of Dr. Maxwell gave way, and the Rev. T. R. Wade, assisted by Dr. John Williams, came to stop the gap. Mr. Wade had ten years' experience of India, and did most useful work at the Kashmiri language; he compiled a grammar and translated the New Testament, thus laying broad, strong foundations for his successors. In the famine which followed and lasted some years he rendered invaluable service to the famine-stricken people. The official policy was to ignore it and suppress all

information; but Mr. Wade and Dr. Downes saw the need, and raised large relief funds, and at the same time aroused the official conscience to take some steps to meet the widespread distress.

At the time of my arrival in Kashmir the scars of the famine were plainly visible in spite of one good harvest, and those who had been through it had terrible stories to tell of the suffering, and sinister rumours as to the malignant influences at work, intensifying the trouble.

Kashmir is a country in which, with ordinary foresight, there should never be a famine. Nature has provided the country with unfailing reservoirs in the form of glaciers and snowfields, so that, even if the rains fail, those crops which depend upon irrigation, such as rice, should never fall very short. The chief danger arises from excessive rains, with floods in the alluvial parts and late harvests in the upper plateaux, injured by prolonged wet or it may be early snow. This is partly what happened in 1877; but the fatal mistake was the great delay in making the official assessment of the crops that autumn. In those days all taxes were levied in kind, and the village assessment was not made till the crops were ripening. It was commonly believed by all the Mohammedan cultivators that in 1877 the delay was deliberate, as the result of orders by Wazir P—— to punish the Mohammedans, who had the previous year sent a deputation to complain to His Highness of the exactions of one or two of his chief officials. The system led to another great evil, that of concealment of produce underground, where it often damped off, and became unfit for seed purposes. The result was that the following two years an immense area of land fell out of cultivation, and the peasantry fled to other lands. As there were no cart-roads, it was only possible to import a very small amount of grain from the Punjab, and the people starved in tens of thousands. There can be no doubt that Maharajah Ranbir Singh himself felt much personal concern; but the Jammu

Court was far out of the famine districts, and there were gruesome stories of the rapacity of many of the officials in buying up rice and retailing at huge profits, though others contributed to relief funds. There was even a rumour that some hundreds of starving people had been purposely drowned in the Wular Lake, to which colour was lent by the sudden death of an eye-witness and informer within a few hours of making the report. Though I subsequently met those who believed it and supplied circumstantial details, the story always appeared to me incredible: but it pointed to an alienation of sympathy, and to an intensity of sinister suspicion which boded ill for the relation of the poor Mohammedan cultivators and weavers with their rulers. Mr. Wade very wisely stood aloof from all political or other agitation; and by importing grain, by engineering relief works and a famine orphanage, of which Mrs. Downes took charge, unostentatious useful help was given. By the autumn of 1881 all the orphans had found parents, and the buildings served for a few years as women's wards.

It takes long for any country, especially one so isolated, to recover completely from famine, and when I arrived the very scanty ragged garments and emaciated bodies of many of the poorer classes, especially the weavers, in the city, and the prevalence of some famine diseases, testified to the terrible time there had been. Mrs. Downes told me, with a shudder, of the half-naked corpses that she had seen lying by the roadside even in the European quarter.

The mission hospital had, under Dr. Edmund Downes, made a great reputation, but the buildings were then quite unsuitable for a big surgical work; they were mostly lath and plaster structures, with clay floors and mud roofs, which leaked badly in winter. One so-called ward was a large barn with walls only 4 feet high, the upper 2 feet open all round to the four winds of heaven: this was, at any rate, better in summer than other narrow wards in

which there was only ventilation when the doors were open. The few string *charpoys* (bedsteads) were hopelessly insanitary, but most of the patients lay in their own garments upon mats on the floor. It is little wonder that with such surroundings there was a good deal of septicæmia. The assistants were untrained; nursing depended entirely upon the relatives of the patients. Listerism had not been introduced into India, and at that time, even in London, the antiseptic system still found many sceptics amongst surgeons. I had brought out with me a carbolic steam-spray, an article now long discarded, but in those days the fetish of antiseptic surgeons, and its mysterious hissings and chemical odours doubtless helped to impress my assistants with the all-pervading evil spirits and germs we were fighting, and the need of strenuous cleanliness. On one occasion, having a formidable abdominal operation to perform, I decided to do it at my own house, away from tainted hospital air. Just in the middle of it there was a great explosion and we were sprinkled with scalding water: the spray had burst, and the top had been blown off with such force that it disappeared; probably it fell into the river, 50 yards away.

During the early summer, when I was away touring and when Dr. Downes became ill and had to leave the surgery to an inexperienced but enterprising army surgeon, several operation cases died of blood-poisoning, and on my return I found many wounds in a terribly septic condition. It was indeed most difficult to cope with the large number of filthy cases or to make the old wards sanitary and clean. I had to ask permission of the Governor of Kashmir for any repairs, even of the most trivial nature, such as lime-washing the walls.

We employed a carpenter to make some church furniture, and as he came to us without any official sanction he was punished by putting his father into prison for a few days on a trumped-up charge. All we did was closely watched

by certain police spies, one or two of whom came to us frequently in the guise of patients, and we understood their profession.

After all these were mere pin-pricks, and I usually experienced most courteous treatment from the Court officials, and endeavoured to respond. Upon first arrival in the country the Mutamid-i-Darbar called, presenting me with a shawl, a sheep, and some trays of fruit and vegetables—a lavish *dastarkwan.* Not only was the hospital built by the State, but also my house, in which many repairs and alterations were made from time to time free of expense. I experienced many personal kindnesses from high officials, at the very time when things were being made in some ways most difficult for the mission. It was an education in Oriental diplomacy to accompany my chief to a professional consultation at the house of a very rich Hindu official, who had two years previously been most obstructive to the famine relief works, as he had "cornered" a large amount of grain, on which he made prodigious profits. We were lavishly complimented as benefactors of the country and heaven-sent healers—in fact, incarnations of the gods—and after seeing the patient had to take tea and sweet biscuits and smoke cigarettes with calm serenity and indifference to time. I always tried to maintain friendly intercourse with the officials, even when, as on the occasion of Lord Ripon's visit, the police tried to empty our hospitals in order to fill the newly built State institution.

They might be honest in their point of view that our presence in the country was undesirable. Fortunately, I was able to meet the Viceroy at Vernag, when he entered the valley, and was invited to dine privately. His suite, and especially his surgeon, Major Anderson, I.M.S., were very friendly, and after visiting the hospital in Srinagar gave a large donation towards our funds, which were then at a rather low ebb.

Sir Oliver St. John was at that time the Political Officer on special duty in Kashmir. He was a good linguist and a man of versatile ability, who had served with special distinction in Afghanistan. Some had blamed him for the Maiwand disaster, as he was Political Officer to the force at Kandahar, and should have known the strength of Ayub Khan's army. He once described the affair to me; and it was also discussed in my hearing by several military men. It certainly seemed as if deficient information had placed the small British force in a critical position; but a well-delivered aggressive blow would probably have achieved a victory even over a largely superior force. A few years later I met Sirdar Ayub Khan, and knew well one of his brothers who lived in Kashmir and some of his retainers; they were gentlemanly fellows, with frank manners and a sense of humour. It was interesting to get them talking about Kabul, though of course we avoided politics. Colonel St. John was successful in Kashmir as Political Officer during a transition period, when after the death of Maharajah Ranbir Singh the British Agent was granted the status of Resident, with enlarged political powers, which he used tactfully.

From time to time in Kashmir I met interesting explorers. One of these was a young Scotchman named Dalgleish, who occasionally spent a month or two in Srinagar on his way to Yarkand, in Chinese Turkestan, where he was connected with a Central Asian trading company. It was at the time of Sir Douglas Forsyth's mission to Amir Yaqub Beg, then ruler of Yarkand, that this company was started. The expedition did most interesting and valuable work, and in a comparatively short time explored a large part of Chinese Turkestan and the Pamirs. Yaqub Beg was a Mohammedan chief who, by great force of character and great military capacity, had led a successful insurrection and driven out the Chinese after a terrible massacre, and for a few years it seemed as if he might found an inde-

pendent Mohammedan State, with which it was desirable for the Indian Government to have political relations. Sir Douglas Forsyth did not consider it wise to leave an accredited representative, and his foresight was justified, for within a few years the Chinese reconquered the country, and for a time there was anarchy. During most of this period Dalgleish lived at Yarkand, and he joined Mr. Carey, I.C.S., in a very bold and noteworthy exploration to the north of Tibet, travelling beyond Koko Nor to Tsaidam, far north-east of Lhassa.

He was familiar with Turki and knew some Tibetan, and was able to disguise himself, if necessary, as an Andijani. When the Chinese troops were finally advancing, Dalgleish was urged to lead some of the Yarkandis against them, and when he declined, the Mohammedans began to regard him with some suspicion. His end was rather tragic: it was at one of the loneliest high camps in the Karakorum that he was murdered by a Pathan, a bankrupt trader, who had joined his camp on his journey up from Leh. He had been kind and hospitable to the man, but had refused to lend him the rather large sum he needed to pay his creditors. The Pathan shot him from quite close, then cut him down with a sword, and proceeded to rifle his goods, while the timid servants and ponymen hid themselves. It will be remembered by many how Lieutenant (now General Sir H.) Bower was sent soon after by the Indian Government to catch the murderer. He followed him to Kashgaria, then traced him over the Pamirs to Russian territory, and finally met him face to face in the native quarters of Tashkent. The murderer was apprehended and committed suicide in prison. This incident made a tremendous impression all through Central Asia. The unprecedented spectacle of Justice hunting down a criminal successfully over the highest mountains in the world, tracking him over deserts to his doom in a Russian prison, and of the co-operation of the

three great Empires, the British, Chinese, and Russian, in punishing a crime committed in no-man's-land, was a lesson never to be forgotten in the bazaars of Turkestan, where the victim had been honoured; but it seemed a tragic end to Dalgleish's career of promise and of usefulness.

Had I been able to obtain a passport for Central Asian travel, I should probably have accompanied Dalgleish to Yarkand in 1885, and spent some months there in medical mission work, for which he assured me there was a great opening, as there were no trained doctors in that country. Dalgleish himself was regarded as a *hakim* by the Kashgaris, and took up a big supply of medicine with him for some of the more prevalent diseases, such as goître, rheumatism, and so on. He pressed me to join him, and would have been most useful as an interpreter, and with his aid I drew up a list of suitable presents and goods for barter, which I ordered from England; these came in due course, but the Pekin Embassy refused any assistance to a missionary, and the journey fell through. In the meantime I had engaged a suitable substitute, and he remained as my colleague for many months, and rendered most valuable service in the earthquake which occurred that summer.

CHAPTER V

THE KASHMIR EARTHQUAKE

THE early months of 1885 were unusually rainy, and the wet weather was prolonged to the end of May, which is very rare in Kashmir. I mention this, not as accounting for the very severe earthquake, but because the saturated soil broke away in great landslips which much intensified the damage and loss of life. It was a cold, drizzly dawn, May 30th; a slight shock occurred at 5 a.m., followed within a few seconds by the most severe rocking and twisting movement.

I was in an upper bedroom, and in the room below were the Rev. and Mrs. ———. For half a minute I lay expecting the noise and shaking to subside, but it seemed to increase, and to the loud creaking of the roof timbers and the swinging of doors, windows, and pictures were added the crashing of bricks and plaster falling on the staircase. My friends shouted to me, and I replied that they had better escape through their open window, close to the ground, which they did, and I went to my window to talk to them. The worst of the shock had subsided, but still there was some creaking; far more appalling than this was the distant scream of anguish from thousands of voices in the city. It was still almost dark; and the weird uncanny sound thrilled through me. Within what seemed a few minutes I heard the voice of a lady neighbour, who had brought her children over for refuge, as a wall had fallen in their bedroom and the house seemed unsafe. We

then dressed, sent to the hospital for splints, dressings, and bandages, and when it was light one party of us went down to the city to render assistance on the spot, while another went to the hospital to receive and treat urgent cases.

To a European traveller the city of Srinagar looks tumbledown and dilapidated to a degree; very many of the houses are out of the perpendicular, and others semi-ruinous. But the general construction is suitable for an earthquake country; wood is freely used, and well jointed; clay is employed instead of mortar, and gives a somewhat elastic bonding to the bricks, which are often arranged in thick square pillars, with thinner filling in. If well built in this style the whole house, even if three or four stories high, sways together, whereas more heavy, rigid buildings would split and fall.

It was very remarkable how few houses fell; but some cheaply built huts, especially double-story barracks, with heavy mud roofs, standing at right angles to the direction of the shock, fell flat like a pack of cards. Part of the palace and some other massive old buildings collapsed. We were soon guided to the fallen barracks, where hundreds of men were at work digging away the roofs, lifting the timbers, and releasing the victims or removing the corpses.

It was a heart-rending spectacle. In many instances, though life was not extinct, the crushed skull or chest forbade any hope of recovery: but some had escaped with merely a dislocation or a fracture; these were at once removed to one of the hospitals and attended to. Captain Leahy, I.M.S., the Civil surgeon, gave great help in the State hospital, which was close by.

During the following day news came that the towns of Sopor and Baramulla had almost been wiped out by the shock, and we decided to start a temporary hospital down there.

The Rev. Rowland Bateman came and joined us. The

day before the earthquake he left Srinagar and passed the soldiers at parade; on the day he returned, near the same spot he saw twenty-one fires consuming the bodies of soldiers killed in the barracks.

It took some days to get down the river to Baramulla, and on the way we saw the ruins of Sopor, where hundreds of well built wooden and brick houses had fallen. The Rev. J. Hinton Knowles, my colleague, and other helpers scoured the villages, sending in the injured to me. There was no safe building in which to work, so we put up tents and hired some very large barges, which were soon filled with cases. Day by day these seemed to become worse from neglect and filth. The wounds were mostly suppurating horribly, and in many cases badly applied splints or overtight bandages had caused mortification to set in. Tetanus also claimed its victims; and to the awful crushes and lacerations were added the horrors of bad burns. Patients were brought on the shoulders of their friends or on bedsteads from 10 miles all round. During the first week there were many daily earthquakes, due to the resettling of the disturbed strata, and these caused minor landslips, especially off the newly scarred faces of the steep hills. In the valley there were some notable fissures—one of these at Dubgam had at first given out steam and sulphurous fumes; another very long one near Patan crossed the main road, one side of which was elevated a foot or two. I always regretted that there was no skilled geologist to trace the chief faults in the massive slaty rocks near Baramulla, for no special significance attached to the fissured alluvium.

There are very extensive post-Pliocene beds forming plateaux on the flanks of the ranges around the valley, and these were split, especially near any scarped face, as if by a plough 30 feet deep. In one or two places the top of a plateau had slid off and fallen into the ravine below, leaving an almost flat greasy surface of blue clay.

The village of Laridura was buried under one such landslide, and only seven of the inhabitants escaped out of forty-seven. I went there a few days later.

Above was forest, of which the trees lay in heaps, or pointing in every direction except heaven; below, a chaos like a deserted quarry, out of which some beams and fragments of house-roofs protruded. Close by the survivors had made little lean-to shelters of branches and bark.

The stench was awful, and might be smelt half a mile away from the putrefying bodies of cattle. Nature had interred most of them, but some were on the surface. As we travelled among the villages sometimes the first indication of one, or of its ruins, came from the sense of smell. Even then, a fortnight afterwards, I found men and women with dislocations and fractures unreduced and unset; the few survivors had been so stunned by the calamity that they thought little of minor injuries.

The plateau, nearly 1,000 feet high, between Gohan, Murun and Laridura had suffered most. On the summit of one of the hills had been the shrine of a *pir* or saint, some hundreds of years old. This was completely destroyed. The superstitious local Kashmiris attributed the catastrophe to the saint, and told Mr. Bateman, who asked why the saint had not protected his votaries: "Save them! why should he? They had heaped too much earth upon him, the fools, and he turned in his grave and caused their destruction."

In villages where the local shrine was uninjured the people gave special offerings to the powerful saint who had protected them. Superstition has a logic of its own. So far as we were concerned it was a time for deeds rather than for words, for sympathy than for sermons.

Later in the year Mr. Knowles was able to revisit that district, distributing a certain amount of relief to some of the more poverty stricken. I could not get away for long till the winter, and then tried the experiment of going

without either a servant or tent, and living among the people.

I started in a small boat, my compartment of which just held a little bedstead and a box. Two little wooden-frame windows were put into holes cut in the matting of the sides, so that it was quite light inside; and indeed, with a charcoal stove, it became a much more temperate atmosphere than in my study here, which varies from 30 to 40 degrees. The boat at night went up to 50 degrees. I was two nights and a day dropping down the river to Baramulla. In places the river was frozen, and for miles round the edge of the Wular Lake there was ice. In the boat I made up the hospital statistics for the year, and otherwise found occupations—one of which, both then and afterwards in the villages, consisted in cooking my meals over the charcoal stove, boiling porridge or eggs. In the culinary art I became rather proficient—bread, pastry, cakes, puddings, are more especially my forte. The art of lighting fires with wet wood in the open air is, however, one yet to be acquired. At Baramulla I paid a flying visit to my old earthquake patients, and gave a few rupees to the more needy, then made my salaams to the Governor of the district, Dewan Hera Nand, a fine stalwart Sikh, with whiskers tied up to his ears. Then my baggage, including 120 little coats for children, was transferred to a flat-bottomed boat used for going down the rapids. On the way I landed and took the temperatures of some sulphur springs—65° F. Then came the pleasant gliding down the broad, oily river, swirling eddies over big rocks, faster and faster. A sharp bend comes in sight and foaming waves; the men backwater or paddle so as to rotate the boat against the whirlpools. A few sharp strokes, and we suddenly drop down a huge mound of water covering a rock; then a fierce splash of waves which jump into the boat; then, with a shout and desperate effort, the boat is turned and brought under shelter of some big rocks through

a narrow channel. Again into the race of waters—over a shoal, bumping stones—then the smooth gliding once more: the rapids are passed, and we float into a little bay where I land.

This was close below the village where Bachan Singh, the dresser, lived. I walked up with him and saw his children, ate some maize bread, had a talk with the neighbours who gathered round, but was not apparently very successful in persuading them that an ignorant poor man could know God. Then we crossed the river, and, after a mile or two, came to a large village newly built. A room was cleared for me of everything except smoke, and I made myself comfortable in one corner. About evening a crowd of poor people came, and I gave away a lot of clothes to little naked children, who came paddling through the snow and slush, with lips blue and chattering with cold, and also gave a dole to eight or ten widows. It was a very tumultuous scene, such struggling and shouting, that I more than once took refuge in the house. Then came dinner, a poor meal. For a while I rested and read; and then, after a few minutes' chat in the next room, where a crowd were gossiping round a fire, which smoked me fairly out, retired to rest well tired. There had been some comical things: children popped up through a hole in my floor, or suddenly dropped in at the window, naked and weeping, while voices outside shouted for *pherans* (coats). In most villages there are one or two well built houses with guest-rooms. They naturally welcomed one who came to distribute warm garments or money, even though he were a "Feringhi"; clean mats were spread on the floor and most savoury dishes of rice and vegetables or meat sent in to me. Unfortunately, the position was one that brought the Kashmiris' weakest points, cupidity and untruthfulness, into prominence.

Each village wanted to "grab" the whole amount, and the well-to-do people were more greedy than the poorest.

Poor little shivering urchins were stripped of their garments and pushed naked and weeping in front of me to awaken my compassion. It was impossible to ascertain the means of the parents, and so my stock of warm children's *pherans* melted away in the first two or three villages. I realized also that while the losses of the people in cattle had been very great yet there had been a good harvest. They had plenty of sheep and fowls, and as so many people had been killed there were fewer mouths to feed. I learnt also another lesson: that merely living in their houses and eating their food did not remove the barriers between us of alien habits of thought and ideals of life; that, however much I might divest myself of my European comforts, I should still be regarded as a *barra sahib*, an influential person, able to assist them, *if I chose*, in lawsuits about land, petitions about grazing rights, timber-cutting in State forests, forced labour on roads, and fifty other matters of great importance to the villager; that if on the one hand I gave assistance, petty intrigues of various kinds would soon centre around me and my special friends, and that if on the other hand I confined my help to the sick and the really poor, my friendship would not be believed in. This was a useful lesson to have learnt.

It is a great mistake for any missionary to suppose that he really promotes the spread of truth by allowing the mission to be regarded as a milch-cow. In times of special distress, missionaries should be foremost in the endeavour to organize and distribute effective relief, but should be equally on their guard against expending money in such a way as to bribe pseudo-inquirers, thus attracting an undesirable type of adherent.

CHAPTER VI

JAMMU AND A MOUNTAIN RIDE

AMONG Indian Princes there is none more devout than H.H. Sir Pratab Singh, G.C.S.I., Maharajah of Jammu and Kashmir, who is not only a patron of Brahmins and Sadhus, but has himself repeatedly visited Hardwar and other Indian sacred places, and even endured the toils and faced the risks of two pilgrimages to the cave of Amernath, almost inaccessible in the heart of the snowy ranges. It was his father's ambition that Jammu should rival Benares in the number of its temples, an ambition scarcely to be fulfilled, for there is no sanctity attaching to the comparatively modern city, and, however lavish might be the gifts of the ruling Prince, they could not rival the ceaseless stream of wealth pouring from all parts of India into the world-famed Kashi on the Ganges. In how many now remote and secluded parts of India the traveller may trace the tokens of a similar ambition, where bygone dynasties have erected long forgotten fanes, and Time has decorated the crumbling ruins with forest seedlings, and the deserted palaces are now the haunts of bats and jackals. In olden times it was not unusual for a monarch to remove his capital bodily. Sometimes he did so under the advice of Brahmins or astrologers after a series of misfortunes; at other times perhaps with the desire of accomplishing some great and new architectural feat which should by its splendour outshine the work of his predecessors; occasionally he may even have had the sanitary object of

abandoning for ever a plague-ridden and malarious site. And so, as we look across the Tavi Valley to the deserted castle opposite, the question arises in one's mind as to the permanence of this southern capital of Kashmir.

It was in the middle of last century that the Dogra chiefs rose to a position of such prominence, although from remote ages Jammu has been the seat of a Rajput dynasty, exercising some authority over the petty chiefs in the surrounding hill country, though itself also feudatory to the greater kingdoms of Lahore or Delhi, Kashmir or Kanouj. With the rise of the Sikh power in the Punjab for a time the Jammu Rajah became a mere vassal of Lahore, but the three brothers Gulab Singh, Dhiyan, and Suchet Singh quickly pushed to the front under the Lion of the Punjab, Maharajah Ranjit Singh. As soldiers of fortune and courtiers they distinguished themselves in many petty campaigns. At that time there was anarchy in the outer hills, with their almost pathless valleys, and bands of robbers scoured the country. As soon as Gulab Singh was appointed to be Rajah of Jammu he set to work to consolidate his rule and to put down the crime which had till then depopulated the fertile regions around, while his brother Dhiyan Singh remained at Court to push the fortunes of the family and avoid in any way arousing the jealousy of the Maharajah himself.

The smaller hill chiefs were gradually reduced to a subordinate position, and in some cases Gulab Singh confiscated their *jagirs*, quietly forcing all the chiefs in the outer hills to look to him as their head rather than deal direct with the Lahore Darbar. Diplomacy was needed perhaps more than power, for many of the Sikh leaders were jealous of the Jammu brothers. And while Gulab Singh was subduing Ladak, always in the name of his feudal lord, the Sikh governor of Kashmir was intriguing to thwart him. Gulab Singh did not hesitate to crush those who stood between him and sovereignty, and was at times cruel, but Cunningham, who

knew him, said rightly that such a man must be judged with reference to the morality of his age and race and the necessities of his position. "If these allowances are made, Gulab Singh will be found an able and moderate man, who does little in an idle or wanton spirit, and who is not without some traits both of good-humour and generosity of temper." In another chapter will be found the adventurous story of the conquest of Little Tibet, under the bold Wazir Zorawar, who had risen from the ranks in the Rajah's service. Then came the death of Ranjit Singh, and before long the astute Rajah of Jammu foresaw the final break-up of the Sikh power, and began to work for the security of his own wide domains and for the reversion of part of his former master's.

Colonel (afterwards Sir Henry) Lawrence, of imperishable fame, was employed in the negotiations which followed the defeat of the Sikh army at Sobraon, and he formed a high opinion of the Rajah's ability and possibly an exaggerated one of the military strength of the Dogras. In any case he was a strong advocate of Native States in comparison with regulation Provinces, and the Governor-General, Lord Hardinge, had his hands quite full without seeking to annex Ranjit's dominions. It did indeed appear as if the Jammu Rajah held the balances of peace and war, that if he were detached from the Sikhs, to whom he had not rendered any help in the first campaign, they would realize their weakness and settle down peaceably; but if, on the other hand, he were as inimical as he was known to be ambitious, he might rally the whole Sikh strength round himself, and with his strong position in the mountains there would be a war of which the outcome could not be foreseen, but one that might bring the Company to the very verge of bankruptcy.

And so the Rajah's alliance was bought by the transfer to him of the sovereignty of Kashmir. The alliance did not secure peace, nor did it prove possible to establish a stable

and friendly Government at Lahore, and when three years later the clear-sighted Dalhousie annexed the Punjab, he may perhaps have regretted the treaty by which Maharajah Gulab Singh had become ruler of "the hilly or mountainous country situated to the eastward of the river Indus and westward of the river Ravi." But the friendly attitude of the Maharajah was undoubtedly of value during the Mutiny, when his successor, Ranbir Singh, sent a Kashmir contingent to assist in the recapture of Delhi.

It must be acknowledged that the wording of the treaty was singularly inaccurate. For in the extreme north-west the Dogras had already crossed the Indus to Gilgit, and farther down that river the whole left bank was independent, while to the north the watershed and not the river was the boundary, and to the east Kashmir territory far overlapped the headwaters of the Ravi. However, all this was settled in due time and without friction by special boundary commissioners; for the British, Major Cunningham acted in Ladak, and Vans Agnew, who was afterwards murdered at Multan, went to the Gilgit border with Lieutenant Ralph Young, R.E.

And so Jammu became the capital of a kingdom larger than England, with tributary peoples speaking a dozen distinct languages and dialects, and at a Darbar in the olden days one might have seen not only the Dogra Princes and Sikh generals, Punjabi officials, and Kashmiri Dewans and Brahmins, with bold Rajput veterans of many fiercely contested mountain campaigns, but those who had been subjugated, Tibetan chiefs from Leh and Zanskar, Balti Rajahs from Skardo or Shigar, Dard chiefs from Astor or Gilgit, with their picturesque and truculent followers, all clad in most diverse costumes. Many of these petty Rajahs were often treated with the utmost contempt by the Court menials.

My first visit was in the days of the dignified and kingly father of the present Maharajah, and a State elephant with

a silver howdah had been sent some miles up the road to meet me, with instructions that I was to be treated as a guest of the State and accommodated in the Residency, and on the next day to have a private interview with His Highness.

Since then many things have changed, but not always for the better; with the coming of the locomotive and the introduction of Western manufactures and education some of the stateliness, the grace, and the patriarchal relation of the rulers towards the people have faded. For many years the State was administered by a Council, of which several members were appointed by the British Government, but at a Darbar held by Lord Curzon in 1905 the Maharajah was once more invested with full powers. A few months later came the visit of our King George, then Prince of Wales, for whom Jammu was decked in the height of Oriental splendour, and a most beautiful camp was laid out around the new Residency at Satwari. It is estimated that £40,000 was spent in connection with this regal display by a State that is always short of money, and which is terribly backward in such important matters as roads and sanitation. But these anomalies are not viewed in the same way by Orientals, and even the tax-payer of a Native State might reply that his forefathers had lived happily without this sanitation which foreigners talk about, that the roads were good enough for him, and that of course it was necessary for the Rajah to make a display worthy of his own position when visited by the Heir to the Imperial throne.

The State Darbars are an interesting spectacle, whether on such an occasion or on one of the great festivals, such as Basant, the first day of spring. The former custom has been revived of every Court official bringing his *nazar*, or offering, to the Maharajah on that day. This gift is about 3 per cent. of the month's salary. Much of the money thus given finds its way back to the donors in the

shape of presents from His Highness to old and faithful servants or as wedding gifts. On this festival every one should appear dressed in yellow, or at least with a turban of that colour. European dress is beginning to invade even such a conservative Court as Jammu, and is robbing it of some of its former picturesqueness and brightness. Black frock-coats now appear among the brilliant embroidered *choga* or mantles worn by the *darbaris*, but fortunately there is little chance of hideous Western hats replacing the far more graceful and becoming *pagri*.

New Year's Day, or Nauroz, is also observed by a special Darbar. Perhaps the most popular is the Dasehra, held in the autumn, and on this occasion there is a review of the troops and special salutes are fired. It is not altogether unlike our Guy Fawkes Day. On the parade ground the effigies of Ram's demoniacal enemies are erected upon poles with fireworks and various combustibles, and at a given signal these are set on fire and destroyed. This is in celebration of the victory of Ram over the wicked King Rawan of Ceylon and the rescue of Sita, a story that is dear to the heart of every Indian.

In former days all Europeans visiting Jammu were received as guests of the Maharajah, and as there was no railway nearer than Sialkote, the "white loafer" would find no means of getting there, though native Courts always had great attractions for promiscuous travellers and adventurers of South European extraction, occasionally with resounding titles. The courtesy of princely welcome was not limited to gracious reception and polite phrases, but extended to a lavishly furnished guest-house, with all kinds of supplies. One could order any kind of tinned provisions—oyster, salmon, or *pâté de foie gras;* anything except *beef* in any shape or form. Wine, too, would be unstinted; and it is not to be supposed that the bill charged to the State corresponded with the amount consumed by the guests. In my own case a stout and smiling

official informed me, with a twinkle in his eye, that I need not drink the champagne daily allotted for my use. It was sufficiently well known that I was only a water-drinker, and I need not make loud protests at the whisky, port wine, champagne, and other items daily entered to my "credit." The officials of the reception department were naturally gracious to guests from whom such reflex benefits might be obtained, and in any case were gentlemen of highly polished manners, rather of the old school. The incoming guest was received many miles from the town by a messenger with an elephant caparisoned with silver; and the rank of the messenger would indicate the estimate of the guest's position.

In my case the Wakil Sahib called after my arrival at the guest-house, and invited me to visit His Highness next day. So in due course next morning the Wakil arrived with the elephant, and sat beside me in the silver howdah, into which we mounted by a small ladder. Thus we swayed slowly in stately fashion along the gay bazaar, up the steep stone-paved road, and finally under an archway into the palace. I was ushered across a courtyard and up a staircase into the Darbar Hall, where the Maharajah advanced halfway down the hall to greet me; he had apparently been sitting on cushions, surrounded by a group of seated courtiers, but now chairs were placed for us, and the formalities were gone through. His Highness asked after the condition of the road, and whether his officials had sufficiently attended to my comfort. We then talked about my predecessors, Drs. Maxwell and Downes. It was to the former, as nephew of the famous John Nicholson, at one time an official in Kashmir, that the house I inhabit was given. Maharajah Sir Ranbir Singh had a princely memory for people, and inquired after many of the Englishmen who had at various times officiated in his State, and appeared to take a real interest in their affairs.

I took the opportunity of mentioning the route by which I had planned to return: the most direct route between the two capitals, crossing a pass of about 13,000 feet. There was a moment's pause, and then His Highness said: "You cannot go that way, the road is not good enough for you." To this I responded that, being fond of climbing, I should find even enhanced pleasure in any out-of-the-way incidents. But the Maharajah firmly insisted that I could not go that road until it was specially prepared; so would I remain as his guest at Jammu while all necessary repairs and improvements were effected. This process might be going on for twenty years or more! So I reluctantly accepted his suggestion that I should travel by the Banihal route, one which was usually regarded as closed to Europeans and reserved for the use of State officials.

Being a comparatively insignificant person, I was less hampered by official trammels and well-meant attentions than most, and was able to ride round the suburbs on the elephant, or to explore on foot the interesting ravine through which the Tavi debouches on the plains. There was not in those days a road fit for driving in or near Jammu. The chief roads consisted of badly laid paving-stones, interspersed with cobbles. Narrow stony paths led steeply down the cliff to the river, and at all hours strings of women with water-pots and of water-carriers with *mashaks* (water-skins) might be seen scrambling up and down from the town. There were quiet, deep pools where I could enjoy an undisturbed bath, and narrow paths where pretty wild-flowers grew. It was interesting to see people fording the rapids above the town, where the water was nearly waist-deep. Few seemed to trouble about their wet garments, which would soon dry in the warm sun; their chief care was for the loads balanced cleverly upon their heads.

There were other attractions, too, near Jammu, such

as the *ajáib-ghar*, literally "wonder-house," erected as a palace for King Edward when, as Prince of Wales, he visited India—a big barrack sort of place, with bright coloured glass windows in Moorish style, giving a jewelled effect in the blazing sunshine. Gardens there are, too, such as the Dogra nobility love—water flowing in shady paths among groves of oranges and pomegranates, with some faintly struggling pot-flowers, overcrowded annuals of the zinnia and aster type, and some prim lines of tall cypresses. These gardens need the mystery of twilight, and then one breathes in the fragrance of the scented East, the luscious heavy perfume of loquats and jasmine (Persian *yosmin*), and listens to the warble of the thrushes singing to the stream.

After a few days I began my return journey by the Banihal route, in those days a mere bridle-track. My own grey pony was a march ahead, and I rode the elephant for a few miles, then lost all such acquired dignity and dropped to shanks's mare as far as the first stage, where I rejoined my servant and steed, but not to remain. The idea of covering the ten stages by forced marches had gripped me. It is so tame to do merely twelve or fifteen miles a day, surrounded by a retinue of menials, and I was at an age when hardships are attractions. How often had I been told of the great saddle exploits of famous Punjabis! And why should the exigencies of the stewpan and of recalcitrant porters determine the pace of my movements? So I argued; and having filled my ample saddle-bags with suitable provender, and with my sleeping-bag tied on in front, I trotted off, with much the feeling and thrill of a runaway schoolboy. By dark we were in some tortuous paths in the outer hills, and the main track broke up into a network of more or less interlacing footpaths, worn deep into the soft sandstone of the Siwaliks by the traffic of centuries.

When it became too dark to judge direction, there

seemed some danger of getting off the route into some side valley merely leading to mountain villages, so I lay down by the roadside and waited events. An hour or so later a mail-runner's bells were heard, and one appeared carrying a torch to keep off any panthers, with which the dense thickets of these outer hills are infested. My pony would soon have shown symptoms of fear had there been any in our close vicinity.

These *dāk* runners live in little straw sheds built near the path at intervals of four or five miles, and are supposed to be ready at any hour of day or night to start on to the next stage. They are sturdy, unkempt fellows, who can keep up a steady jog-trot for the entire stage, and repeat it after a short rest. This young *dāk-walla* was astonished to find an Englishman by the roadside, but was reassured by a few words of explanation in his dialect, and cheerfully consented to pilot me. "Follow the gleam," was my watchword, and we made good progress through the forest and over one or two low hills; at the next hut I was handed over to the guidance of another torch-bearer, and so travelled on till past midnight. It was at times very weird to see the shadows of the hills outlined against the starry sky, and the fantastic shapes of many of the old trees. The narrow rocky glens were such as might be peopled with goblins in local legend, and anon one could hear the splash of a waterfall, the distant hoot of an owl, or the dogs in some far-off village. At a camping-ground I found many travellers resting, and was glad to get a little grass for my good pony, whose reins I looped to my ankle, and then flung myself down on the bare ground, with my saddle-bags as my pillow, and was soon fast asleep.

By 4 a.m the encampment began to stir: some were loading the oxen, others warming themselves by the fires. All were on their way to the plains with ghee or other Kashmir produce. For a time I walked to get warm,

and again where the path was like a stone staircase, paved with rough blocks straight up one face of a mountain and down the other. I saw the dawn gradually getting brighter, the primrose glow behind the jagged outlines of the Kishtiwar mountains, reflected in some patches of rice land in the valley below. At Udampur I got some gram for my pony, who seemed fit for another stage. So I gave him a good rub down, and an hour's rest while I made friends with the head policeman. The road was pretty good for the next 14 miles, to a rest-house, where I left my own pony, hired another, and got a cup of tea. Then with the fresh animal I cantered off, and crossed the Batoti Pass, with its deodar forest: then down for many miles to the Chenab River, with its oleanders, and, at Ramban, gardens full of tropical plants. Here I got a little food, then pushed on with my slow mount, sometimes winding up a hill, then down through pine forest, then picking our way among the boulders of a landslip which made a dam across the valley, above which a lakelet had formed.

At the next stage, Ramsu, I succeeded in obtaining a new horse, and late in the afternoon passed through the little hamlet of Banihal, intending to get across the pass of that name and down into the Kashmir Valley that evening. My pony thought otherwise, and hatched his plans so secretly that I was deceived into thinking that he was tame and tired. So when the hill got steep and he stumbled along irresponsive to my heels and switch, I dismounted and began to lead him. He dragged on the reins in a sleepy fashion, so I adopted the native plan of holding on to his tail and driving him in front; and thus for a short distance we progressed, while he devised a plan of escape. To my dismay his heels were suddenly flung up towards my face, and with a whisk of the tail he was free; instantly he trotted away a few yards, then swung round and started off down-hill, first at a trot and then at a

canter, with me at full speed running down the steep slope, trying to head him off from the main path at the bottom. But four legs had the swifter heels, and with stirrup irons clanging and saddle-bags bumping, the pony galloped at full pace through the village, swerving here and there to escape outstretched arms. I was laughing and panting, but my gestures were sufficiently expressive, and the runaway soon had one or two swift young fellows on his track.

Meanwhile I rested on the verandah of a little hut, where sat a Mussulman fakir. He was quite a striking figure, with a tall pointed Turkoman hat of black fur, a parti-coloured cloak, and loose Afghan trousers. His dark piercing eyes, aquiline nose, and grey-streaked beard were the most notable features of a kindly face, weather-beaten and humorous. It was now getting dark, and without moon or lantern there could be no question of crossing the mountain. My food and saucepan had disappeared down the road with the runaway. So I gladly accepted the invitation to spend the night with the fakir, although I could have got quarters with one of the shopkeepers. The man interested me: he told of his wanderings in Bokhara and Herat, and we discussed some religious matters. He was a Sufi and a mystic, with a far wider outlook than the ordinary Mohammedan, and was surprised to find that Christian philosophy had some points in common with the tenets of his sect. It was natural under the circumstances that we should speak rather of the similarities than of the divergencies of thought. He seemed acquainted with Persian classic poets, whom he quoted by memory, but possessed no literature beside the Koran. A little hill-boy came and helped prepare the evening meal, which in my case was reinforced by the recovery of my saddle-bags; and the cold wind now blowing off the snows emphasized the value of my sleeping-bag, into which I crept early, to avoid the acrid smoke of the pine logs.

Such an experience is not free from many petty inconveniences—insects, dirt, smoke, and coarse food. Yet after all man's basal needs are everywhere much the same, and it is the capacity for enjoyment which varies more. Civilized men and women indulge in picnics for the sake of reverting to primeval conditions of simplicity. If the same food were eaten from tables with flunkeys in attendance, the picnic would lose its charm. The comforts of a well appointed bathroom do not come into competition with an alfresco swim in the churned up waters of a deep pool below the rapids. In the one there is ease, in the other exhilaration. And so, as I lay and thought of the contrast between my rough and primitive surroundings and the cultured comfort of friends in the homeland, there came a sense of pity for them rather than for myself; for was not I enjoying the zest of life, enhanced by a sense of achievement? In the darkness and stillness I seemed to hear the voices of the mountain-tops whispering to one another while the rest of the world slept below.

My fakir host rose early for his usual "cock-crow *namáz*," and I was ere long on my way, feeling that I had probably learnt more from him than he from me. It is difficult to compare the education of such a man with that of our semi-literate classes. With us books are the chief instructors. The Eastern learns direct from man to man. In the bazaars of Bokhara and of Persia my fakir friend Buland Shah had mixed with rich as well as with poor; with merchants whose caravans yearly cross Central Asia to China, others who trade with Constantinople and Moscow, and with *hájis* who had been to Mecca and to Egypt. And as such men congregate to drink their coffee and smoke their hookah, they discuss all things under the sun, and some above it. He had seen enough of the seventy sects of Islam to know that the name "Mussulman" includes many who are atheists and others who are idolaters, and had met many Christians who appeared

to him better than he believed their creed to be. Anyhow, whatever might be the creed or the life, "Allah is merciful." He set up no exalted model of virtue, but in a roving life adapted himself largely to things as he found them, and received from the peoples amongst whom he sojourned the courtesy and hospitality which are usually extended to religious mendicants in the East. These he repaid by repeating his prayers at the canonical hours, and doubtless by shrewd advice and humorous stories. He accepted my parting invitation to pay me a return visit at Srinagar, and I rode off early on my recaptured steed, and surmounted the pass in time to see the sunrise lighting up the great valley, stretching away some ninety odd miles to the western horizon; and in the clear cold atmosphere I could see the windings of the Jhelum River, which would take me back within the next twenty-four hours to my home under the shadow of the Takht-i-Suliman.

PS.—When Buland Shah turned up some months later, it was with requests for every kind of medicine on behalf of his "parishioners" at Banihal.

CHAPTER VII

SPYING OUT THE LAND

Knowest thou the land where towering cedars rise
In graceful majesty to cloudless skies:
Where keenest winds from icy summits blow
Across the deserts of eternal snow?

Knowest thou the tent, its cone of snowy drill,
Pitched on the greensward by the snow-fed rill;
Where whiter peaks than marble rise around,
And icy ploughshares pierce the flower-clad ground?
Knowest thou it well? Oh, there!—oh, there!
Where pipes the marmot—fiercely growls the bear.

Knowest thou the cliffs above the gorges dread,
Where the great yaks with trembling footsteps tread,
Beneath the Alp where frolic ibex play,
While snowfields sweep across the perilous way?
Knowest thou it thus? Go there! go there!
Scale cliffs and granite avalanches dare!

A. Wilson (after Goethe).

IT was my first June, and already the increasing heat was driving most of the European officials and visitors to Gulmarg, the lofty Alpine meadow amid pine forests which has since become such a popular hill resort. Dr. Downes would go later, and have a little hospital hut for the sick who came up to him from villages far below. But he suggested that I should first take a trip to spy out the land, as such an opportunity might not recur for many years. My faithful cook, Jamal Ju, who has already been introduced to the reader, of course accompanied me,

and I also took a supply of medicines and a compounder, a stalwart Sikh named Bachan Singh.

Of the companions of those early days how many have passed away! But Dr. Bachan Singh, now a pensioner after many years of faithful service first in the mission hospital and then in the State, still lives in honourable retirement. He was always the same, reliable and self-reliant; a faithful, imperturbable practitioner of the old school—a far better doctor and operation-assistant than many a Babu with a University training. As a lad he had been about the country with his father, who was a *shikari*, and had seen plenty of big-game shooting. The father once went out with me after bears; he carried no spare rifle, but merely had an axe in his belt, with which it was reported he had killed a bear which charged home, stepping in front of his *sahib*, who had emptied his gun and could not reload. That was in the days before repeating rifles and high-velocity bullets.

The son had some of the qualities of a *shikari*, and was good at hunting up cataract cases, and others, for surgical operation. Many a difficult tumour have I removed with his help as we travelled in the villages, with the grass sward as our operating table and a shady walnut-tree as our roof. He appreciated scenery, too, and had a considerable fund of humour, which enlivened our journeys, though not so amusing and vivacious a companion as his cousin, Lal Singh, who was always bubbling over with jokes, and had a keener appreciation of scenery than any native I have known.

To live and travel by oneself one has to make friends of the rocks and plants, the mountains and the stars, as well as of the natives.

As I walk along I scan the cliffs and banks for the flowers I knew in previous years—they and I are nodding acquaintances; somewhere in the pigeon-holes of one's memory are their names written and the little street and terrace in

which they live. In the great limestone cliff of the gorge below Sonamarg there is the cleft where I look to see if the lovely tuft of harebells is still there. One need not know much botany to make personal friends of the blossoms, any more than anatomy is necessary for appreciation of human social intercourse. And so, too, at the top of the Zoji Pass I search till one or two of the crimson potentillas streaked with orange come in sight, and the special kinds of gentians that grow in the glade of birch-trees just over the shoulder before getting on to the snowfield.

We crossed the Rajdiangan Pass, on which I heard pitiful tales of the plight of the poor coolies dragged from their homes in hundreds every year to carry supplies to the far-off garrison of Gilgit. And I could realize some of the difficulties, for the unmade track was not easy for well equipped lightly laden men, how much less for the porters, who had to carry sixty-pound loads in addition to their own personal rations for twenty days, clothing, and grass shoes.

Snow lay deep in the ravine beyond the pass, and our route lay along the old avalanches, which accumulate to a depth of 40 feet or more, and often remain unmelted through most of the summer. On the next march there is a wonderful combination of river, forest, and cliff scenery, culminating in the gorge below the fertile flats of Gurais.

In a wooded corner by the river, Bachan Singh and I might almost have captured a pretty musk-deer, which ran nearly into our arms. These have since become very scarce, and the shooting of them is forbidden, but poaching still goes on for the sake of the valuable musk-pod.

We must have missed the way; for there was a better path over the top of the cliffs, by which our coolies went; but in the attempt to find a short-cut near the river we found ourselves crawling along most precarious ledges, 30 feet above the deep, swift Kishenganga. It was my first introduction to a difficult *parri*. At the worst

place a little bit of "scaffolding" path helped us through, but I was glad of assistance more than once.

At Gurais, although the Kashmiri language is spoken, the people are *Dards* by race, and closely allied to the tribes which occupy the valleys draining into the Indus where it makes its great bend to the south. They appear to have been there from prehistoric times, occupying much the same area, for though at times temporarily subdued by powerful Indian monarchs or by the kings of Kashmir, yet there is not much land in those wild mountains to tempt the conquerors to dispossess any aborigines. It is a moot question whether the Dards did not occupy the western part of Little Tibet long before the beginning of the Christian era, and until the Tibetans pushed them out. They still remain a distinct group of tribes, very seldom intermarrying with either the Kashmiris, the Baltis, or the Pathan tribes which border them.

Their villages are amongst the filthiest I ever saw. The log huts are closely clustered together, human beings and cattle in the same building, surrounded by manure heaps and mud. Though naturally no darker than the Kashmiris, yet these smoke-begrimed folk, with their dark woollen garments, are far less attractive in appearance. The women wear a loose dark brown bag upon the head, which can be pulled down to protect neck and cheeks from the wind and snow. The snowfall is heavy, and severe storms are frequent, so that the people are shut into their villages for four or five months every year. This accounts for a good deal. Some of the valleys were also exposed to raids from Chilas, so the huts were huddled together for protection, and in many places arranged like a small square fort. Things have now changed for the better, and the construction of the road to Gilgit, with the increased traffic and contact with European officers or sportsmen, as well as educated Indian officials, has tended to introduce some

civilized ideas amongst these people. It is a pity that efforts are not made to start education in some of the chief villages.

Gurais has a pleasant summer climate and beautiful scenery; the most striking feature is a lofty pyramidal limestone peak at the head of the valley, which I once climbed; and at the foot is a very copious sacred spring, to which the Maharajah made a pilgrimage some years ago.

It is just below this that the two main streams join which form the Kishenganga River. They are of about equal length and size, and both flow through a limestone region, and as soon as the winter snows have melted they become an exquisite clear turquoise colour. The northern branch comes from the Burzil Pass, and cuts its way through the rocks with beautiful pools above each rock bar. There is an immense thickness of limestone between Gurais and Minimarg, the strike being east and west, changing in this region to the south-west.

The Tilel district lies along the eastern tributary, and I did not visit it till some years later. The people there are more closely allied with the Kashmiris, a connection which apparently dates back to the period of the Dogra conquest, early last century. Plundering bands of Dogras burnt many of the villages, and the inhabitants fled across the passes to the nearer valleys on the Kashmiri side. Later on a reverse current set in, and peasants from the Lār district of Kashmir migrated to Tilel to avoid the grinding taxation and the forced labour. During several decades of last century Sikh and Dogra armies were conquering the mountain lands of Ladak, Baltistan and Gilgit. As there were no roads fit for ponies and nothing that deserved the name of a transport or a commissariat department, each expedition involved the forced levy of thousands of Kashmiri porters by the summary process of driving most of the men out of all the villages at the mouth of the valleys leading up to the passes. From such

oppression some fled to find a peaceful haven in the secluded valleys of Tilel ; there they intermarried, and at the present time the people are bilingual, speaking almost as much Kashmiri as Dardi.

The valleys are narrow, without much cultivable land, and that of rather poor quality, as the mountains are of limestone and the soil is chalky. Every second or third year many of the fields are left fallow. I was there one year in the harvest season, September, and crops seemed to be ripening at greater elevations than in Kashmir. There are several villages over 9,000 feet, where buckwheat and barley are grown, but do not always ripen. In my first journey up from Gurais to Minimarg we kept entirely along the right bank of the river, and in places the pony track wound up over the spurs, with precarious footpaths below, nearer the river. It was on such a place that I met a young subaltern out on *shikar*, and he turned and accompanied me to my next camp. A few years later he was going the same way in command of the troops who were being hurried up to Gilgit in preparation for the Hunza-Nagar campaign. But in crossing the Burzil Pass in a severe snowstorm he got frost-bitten, owing to his persevering efforts to save some of his men who had fallen behind, so he was unable to take part in the campaign. In spite of this bad luck, promotion and distinction came in time, and General Sir A. Barrett is now a divisional commander in India.

I had intended turning aside from the Burzil to cross the Deosai plateau direct to Skardo, but we were too early in the season; everywhere there was deep snow, with a hard frozen crust which softened by nine o'clock, so that walking became almost impossible. Every second or third step we broke through suddenly, and sank in to the knee. Snow-shoes would have been very useful, but we had none, and the porters with their fifty-pound loads found the going most difficult, and dropped far behind.

In the hope of getting a good view, I scrambled up a high

point on the south side of the pass, leaving my Sikh to bring the porters along. It was good mixed going over rocks and snow, with no really difficult ground, though Jamal Ju was scarcely up to the work.

The summit was a cone of shaly rocks, and commanded a splendid view in all directions. The wide U-shaped valleys in this region point to very extensive glaciation; they looked like frozen lakes with their glistening ice surface. Evidently it was hopeless to think of crossing the Deosai plains, so we descended the Astor Valley for a few marches to Gudai, and there turned north-east up a very lovely side valley. It seemed to me then more beautiful than anything I had seen in Switzerland, not, perhaps, merely on account of the graceful outlines of the beautifully shaped domes of spotless snow at the head of the valley, or of the very dark pine forest in the mid-distance, or the brilliant crimson rose-bushes in the foreground, of which the long trailing branchlets bent over to meet the rainbow sparkling spray of the torrent, but the great charm was the wild untrammelled freedom of it all. There were no railway embankments and no hotels, no signs of man's engineering or of his commercial enterprise: Nature held undisputed sway, unmarred by bricks and mortar. Even the swift streams, now swollen with melting snows, were unbridged, and we had either to wade through them, at some risk of being bruised or washed away, or to seek in some shady spot a still unmelted snow bridge on which to cross.

How glorious and how prized are the quiet communions with Nature, as day after day the very memory of railways and factories, of coal-smoke and petrol smell, fades away. Even post-offices are here unheard-of, and all else that in any way symbolizes the vibrating rush of civilization—if by civilization we mean that which has to do with cities, those terrible aggregations of stone and steel, of swift-moving vehicles carrying the throngs of toilers to their work and of pleasure-seekers to the theatres. The lessons of Nature

cannot be learnt in the glimpse of a waterfall from the window of a trans-continental express, for she is in no hurry herself. Many of her processes are age-long. It needs an imagination handling millions of years to compute the working of aerial erosion, of which these mountains are so eloquent, or to calculate the time during which water has been sculpturing these valleys.

Interminable ages seem to pass swiftly in review as we interpret the water-worn chasm, thousands of feet deep through the hardest rocks, where now stately rivers flow or tumultuous waters thunder, and a decade marks no change.

One need be neither Maharajah nor scientist to claim one's heritage in all the magnificence and all the beauty. But one needs the open eye and the reverential heart. I have read that when Ruskin caught sight of the Alps afar he fell on his knees and prayed, and thus it was that he gained the inspired insight which wrote the chapters on mountains in "Modern Painters."

It was a long climb up the Alampi Pass, and I began to appreciate the scale on which these mountains are built. Many of the peaks rise 8,000 or 9,000 feet above the valley; but as we ascended something infinitely grander came into view, towering far above all rivals. I had been as a lad on the Brenva glacier, and seen the huge snow slopes and ice cliffs of the east face of Mont Blanc, but Nanga Parbat is infinitely more stately and impressive. Since then I have seen it from all sides, but from none is it so impressive as the east, towards which it plunges in huge precipices unscalable even by an ibex. Three great glacier rivers pour their cascades of ice into the Rupal *nullah*. A boulder started at the summit would probably break to pieces in the fall, but the fragments would only come to a rest 15,000 feet below. The profile, as looked at from the Rupal Bridge, is too square to be impressive, but as seen from the Alampi La is very bold with its

sharp peak and clear cut *arrête* on the left at an angle scarcely 20 degrees from the vertical.

Our camp that night was on the very edge of the snow-field, and the cold was intense. Next morning, when the sun rose, all around us was a frozen stillness, and the mauve shadows lay across the lower ranges in front and filled the valleys below us; but the giant mountain caught the first rays and glowed like a fiery pillar. I tried to sketch in spite of frozen fingers, but the first wash of colour was turned to a film of ice over my sketch-block, and I had to desist from the attempt and to hurry after my porters. They tramped steadily along over the crisp snow, but soon the gradient became very steep, and we had to zigzag up the slope, here and there kicking or cutting steps for the Astor men, who wore as footgear only strips of untanned leather wound over the foot. They are very sure-footed and agile, but the leather becomes very slippery when moist, so we had to be careful. They felt the steep ascent, and became very slow; one of them turned mountain-sick, and had to sit down. I led up to the top, encouraging the brave fellows; and then two of them returned to fetch their comrade and to carry his load.

This was my first experience of the Astor men as hill-porters, and it gave me a favourable impression which nothing has modified since. It is really wonderful how these men or their neighbours, the Baltis, few of whom are over $5\frac{1}{2}$ feet high, and whose food is rather insufficient and poor in quality, will carry a fifty-pound load over mountains with steep gradients, marching for ten hours or more with but short rests. Moreover, they travel quicker than the Kashmiri, who is a bigger man, and they grumble less. I always take the first opportunity of exchanging Kashmiri porters for others.

We did not stay long on the top of the pass, which is nearly 17,000 feet high, for I had a slight headache due to the hard ascent and to the brilliant reflection of the June

NANGA PARBAT.

sun from the glittering snowfields. So we plunged quickly down the softer slopes on the east, and even the porters joined in the headlong race.

We did not camp till near dusk, when we reached a large village, from which next morning we were able to obtain a new lot of porters, who knew the way. The torrents were swift and deep from melting snowfields, and in some places swept against the foot of lofty cliffs, driving us up over the top. In one or two places we had to cross stone shoots near the top of such cliffs; the men ran over these with goat-like lightness, but our boots displaced stones which rolled for a few yards, then dropped for hundreds of feet sheer to the river.

That evening we reached the Indus near Katsura, where the great river enters one of the most Titanic gorges in the world, and one of the most forbidding. Between Skardo and Bunji the kingly Indus, reinforced by the Shayok and the Shigar, both of them rivers of equal magnitude, cuts its way down from 7,500 feet to 4,000 feet, with innumerable rapids, and at one place (Conway) a sheer fall. Only a few miles from the south bank below Rondu, peaks rise to over 19,000 feet, while on the north Mount Haramosh, 24,270 feet high, approaches within 8 miles of the river; so that this colossal gorge is 15,000 feet deep on one side and 19,000 feet on the other, probably the deepest in the world.

At Katsura there are striking signs of the extent of the former glaciers, with huge erratics, and a lakelet, due to blocked drainage. So also at the next march, close to the Skardo fort, where there is a crumpling of some lacustrine clays which Lydekker considers can best be explained by the lateral thrust of ice. All this points to vast climatic changes since the valleys assumed their general shape. And yet it is quite possible that a drop of temperature averaging 10 degrees summer and winter would bring the great glaciers, such as the Baltoro or those of the Saltoro, down to 7,000 feet.

I shall not soon forget those marches at midsummer over the loose sandy plains of Skardo and the Indus Valley, sometimes without a drop of pure water to quench one's thirst; nor the delicious cold baths daily in the mountain torrents which were met with at intervals of eight or ten miles. This was also my introduction to scaffolding paths, though these have long been replaced along all main routes by decent bridle-tracks. Near Tolti, where now a well blasted mule path leads right along the face of the cliffs, we had then to ascend and descend three consecutive *parris*, scarcely accomplishing 7 miles in a straight line during twelve hours' marching; once or twice there was a bit of sheer cliff against which was placed a tree trunk, notched for the feet like a primitive ladder; and then slabs of thick schists laid loosely across wooden props fixed in cracks, so that one looked down through the gaps in the path to a turbid river far below.

The ordinary path led along the edge of the river, but was temporarily submerged by exceptionally high water. My cold dips gave me an acute bilious attack for a day or two, when the long toilsome marches seemed a nightmare.

At Kharmang, in order to obtain supplies, I was obliged myself to cross the long rope bridge. It rather reminded me of the gymnastics which my brother and I, when small boys, indulged in under a pier at the seaside, swinging ourselves along the iron tie-rods and girders above the sea. It was a good preparation for these loose swaying ropes over the swift leaping waves of the Indus. I have never heard of any one, however clumsy, falling off such a bridge, as there are ropes for each hand as well as for the feet; but from time to time they break under a specially heavy load or from simple disrepair and neglect; so I was never too proud to allow a local native well-laden to cross in front of me! Some European mountaineers have felt a little unhappy while negotiating such bridges; and they

may have steadier nerves on a difficult cliff than myself. An all-round climber needs, like a sailor, to have clutch as well as balance, though the latter is more essential. I was invited to call upon the local Rajah, who gave me tea and took toll of my medicines; he was both inquisitive and greedy, asking me about one disease after another, and finally requesting supplies of suitable remedies for all those complaints. Fortunately I had left my medicine chest on the farther side of the river, so I was able to limit my presents to things I could spare. At some of the larger villages I passed through, quite a number of patients came for medicine, and a good many minor eye operations were performed by me or Bachan Singh.

A few days later, near Karkitchu, we joined the bridle-path to Ladak, even then a fairly good one; next day, at Dras, I heard that my chief was poorly, and had gone to Gulmarg, leaving the hospital with our Indian house-surgeon in charge; so I returned by rapid marches, doing the last 38 miles on foot between 7 a.m. and 6 p.m. on one of the hottest days of summer. What with heat, dust, and thirst, I arrived almost exhausted, but a cold bath and several cups of tea soon refreshed me.

Such was my first tour; it was not merely physically invigorating, but had given me a glimpse of different tribes, mostly likeable, of picturesque villages, and of a mountain region, the more fascinating because so largely unknown. I had caught sight of the distant snowy barriers beyond which were the Pamirs and Chinese Turkestan, and had gleaned from the natives a little information about the passes, till then untraversed by any European, leading away to the north; and the thought pressed itself upon me that there must be pioneering missionary work to be done, for which a year or two of travelling in Kashmir with one's experience as a doctor would specially fit me. This was an expectation that has been but partly realized, owing to the claims of our great hospital work in Kashmir.

CHAPTER VIII

A JOURNEY TO SHIGAR AND THE NUSHIK

IN August, 1895, I was once more camped below the Burzil Pass, at the head of the Kishenganga Valley. The journey had been much facilitated by the well constructed bridle-path and the comfortable little rest-houses. But now we were turning aside from all this across the wild plateau of the Deosai. As we ascended the steep slopes, we looked back to the graceful outlines of Arrow Peak (so named by Conway) down the valley. It was a steady steep pull, with merely rough goat tracks, but all around was the rich vegetation which was soon to be exchanged for the grand but barren solitudes of Baltistan. The birch-trees were the last we should see; and under them was a dense flowery undergrowth of columbines, large starry anemones, coltsfoot, scabious, and geraniums.

Above, it was stonier, but instead of the expected ridge we entered the long grassy valley of Mir Panzil, with no well marked watershed; the stream we had followed was traced up to a big snowbed; then came a wide trough-like valley draining to the north. The explanation might be either that the Burzil stream, cutting back from the south, has captured a valley belonging to the Shingo River, or that this was a *transection* valley eroded in glacial times, when the Chota Deosai was blocked by huge glaciers, which transected the range to the west. I incline to think that both processes have been at work.

It was a sharp, clear morning, with heavy dew sparkling

on every blade. Our path crossed the Chota Deosai, a broad grassy valley of rounded contours, and ascended past some big rocks, Sari Sangar, to a pass of the same type as Mir Panzil, which we now overlooked, a broad cut through the ridge, with very definite marks of old glaciation. In front, on the very summit, is a peacock-blue lake, half a mile long and 200 yards broad. This also marks the site of a former transection glacier, and here and there moraine mounds may be seen. The grey granite boulders contain large crystals of orthoclase, and there is a good deal of biotite, with much quartz. Passing a low mound we saw another pretty lake below us on the right, and began to get wider views over the great plateau to the north, with its rounded hillocks and undulating shoulders, with flat-bottomed grassy valleys through which clear streams wind their way. One is of peaty water, hence called "Kruhin-āb," the black water, another is "Wozul-āb," the red water. The average height of the plateau is over 13,000 feet, and it is only during the last month that the snow has cleared off the levels, so it has the climate of North Labrador. It was surprising to see the many old small stone huts of Chunda Kut, where we pitched our camp and the porters found snug refuges. They spread out far and wide to dig up the coarse stems of the dwarf birch-bushes as fuel for the night. These stone huts appear to have been built by Baltis, sent by the Rajah of Skardo some generations ago, as a frontier post, guarding against the attacks of the Dards. The traveller Vigne actually saw a raiding party being chased.

During the afternoon low clouds swept with a strong west wind across the plateau, throwing deep violet shadows on the slopes and leaving behind a trail of fresh snow on the summits. One minute, in the bright sunshine, if sheltered from the wind, we should be glad of *topis* to shade us from the heat and we should see mosquitoes dancing round a swampy hollow; the next, we should feel a cutting blast and

slip on macintoshes to protect us from the lashing of small hailstones. At night the tent became frozen stiff with hoar-frost and the water in my hand-basin became a solid block of ice.

The morning was lovely, like late autumn in the Highlands. Not till mid-day did the famed Deosai mosquitoes become active. They are an energetic breed, a variety of Culex; for them life is short and travellers very few, so without any preliminary buzzings or questionings they promptly dash straight at any bare skin, alighting gently, so as to awaken no suspicion of blood-sucking intentions until the proboscis has been sufficiently inserted. The other most common native of the plateau is the marmot, a very sociable and inquisitive little creature. When the traveller is still a mile away the chief scout shrilly whistles the alarm, and at once all the colony except the scouts dive underground. When you have passed by, even a score of yards, the marmot crawls out and sits up on his haunches in the most perky way, peering over the juniper-bushes or stones to watch your back. But he does not count numbers. So if one of the travellers walks on and the other drops behind cover, it is easy to stalk them to within a few yards. I have frequently done so, not to kill, merely to snapshot with a camera or sketch with my pencil. Red bears formerly abounded around the Deosai, but rifles are now too far-reaching and sportsmen too keen, while Bruin's massive form can be seen 10 miles off in these wide plains, and so he has been driven to remoter and less accessible fastnesses. At any rate, the modern Deosai traveller does not meet Mr. and Mrs. Bruin perambulating *en famille*.

The only birds I noted were larks, the yellow wagtail, and a raven.

A complete list of the flowers would fill a page; many Kashmir acquaintances, usually only met with there below 10,000 feet, occur here at 13,000 feet, such as the epilobiums, *Morina Wallachia*, geraniums, and borages; while others

occur which are common in the Karakorum Mountains above 14,000 feet, such as some of the primulas, potentillas, sedums, and saxifrages.

I found a few large *Saussurea* (*Atkinsonii*) and the *Corydalis crassifolia* on stony slopes.

The most impressive thing to the traveller who has come up out of deep, narrow valleys is the sense of wide space and of a distant, low horizon. One looks away across the undulations and over the marshy levels where the shallow streams wind about, to ranges 20 and 30 miles away, which may really be 17,000 feet high, but yet appear to rise only one or two thousand feet round the edge of this vast scallop shell.

Another noticeable thing is that the hills up to about 2,000 feet above the plain are all rounded off, though above that very craggy. The undulations and stony slopes consist of vast thicknesses of gravel overlying rounded bosses and knolls of rock, bearing signs of ice action. And scattered about, sometimes perched conspicuously on ridges, are subangular blocks of gneiss, some of large size.

All this points to a great extent of glaciation, probably an ice-cap at one period, then shrinkage of the glaciers and tremendous denudation, with a heavier rainfall filling the hollows with a great thickness of debris, then again glacial advance and subsequent retreat, leaving the many lateral moraines which are still conspicuous. Drew thinks that river ice transported many of the glacial materials to their present positions.

As mesozoic limestones are met with at 17,000 feet on the north side of the Deosai, we picture the elevation as having been approximately contemporaneous with that of the Zanskar ranges farther east, but some of the elevation may well have gone on in recent times, thus leading to the cutting back of the Burzil stream.

Next day we camped at Ali Malik Mur, where are some shelter walls, and here we were met by an official who had

come from Skardo bringing fuel, meat, and other supplies for us. These were welcome in themselves, and also as a sign that the chief officer of Baltistan wished to be civil and to render assistance.

The ascent to the Burji Pass (15,900 feet) is quite easy, the only steep bit being the last 500 feet up a shaly slope. From the top is a truly glorious panorama. This has been most successfully reproduced by Signor Sella in the splendid book which describes and illustrates H.H. the Duke d'Abruzzi's explorations in the Karakorum. To the north we could see Masherbrum, K^2, and other giants; away in the far north-west were Rakaposhi and perhaps also a shadowy Tirich Mir, and at our feet, more than 8,000 feet below us, small portions of the Indus and Shigar valleys could be seen, with dark green patches indicating their dense orchards. In a valley close below us to the south-east was a pretty green tarn shut in by stern, dark cliffs.

We started down over beds of snow and then rocks to Wozal-hadan, a camping-ground, probably named after the ferruginous sandstone cliffs, above which is an outcrop of dolomite. Below this an accident happened to one of our transport ponies, which tried to stand on its head. This disturbed the equilibrium of its load and the boxes fell off, smashing several bottles of lamp-oil. An evil fate followed that oil. We started with it in tins; a lazy muleteer damaged these and much oil leaked, so we collected bottles to take the remainder, and now most of that was spilt.

Going down the narrow gorge we saw a robbers' cave and old defence walls at a place where the cliffs almost overhung. Lower down were pencil cedar-trees and then bushes of currants and some quite edible red gooseberries. At last we emerged from this steep, shaded gorge into the glaring openness of the sandy plain of Skardo, and two hours later reached the travellers' rest-house, which had been prepared for our reception.

CHAPTER IX

SKARDO AND SHIGAR

ALMOST immediately after our arrival at the rest-house, the Tehsildar Pershad Ju came along to call. I had known his family in Srinagar; they live by the ninth bridge in a huge pile of old mansions covering several acres of ground, close by the temple of Humayun which Ram Ju Durr, the head of the family, built. At the time of Ranjit Singh's conquest this family rose to power and became chief advisers to the Sikhs. The Tehsildar, or district Governor, administers the whole of Baltistan under the Wazir Wazarat, who lives at Ladak; formerly it was the other way about. On my first visit to Skardo in 1882, Mehtar Mongol, the Wazir, had his headquarters there. To him travellers owe gratitude for his persistent efforts to plant avenues of trees along the roads. Pershad Ju brought various presents, including a sheep, and abundance of fruit and vegetables; as also did other visitors, so that a casual passer-by, looking into the room, would have thought I was setting up as a wholesale greengrocer and fruiterer. George Tyndale-Biscoe and I returned the call and were invited to dinner. The meal was by torchlight in the open air, and consisted of a large variety of courses—curries, pillaos, stews, and so on—some fourteen or fifteen dishes served up more or less simultaneously. It was all very weird and picturesque, and my digestion rose to the very special occasion. It was still warm weather, 84 degrees in the shade during the

day, and 78 degrees in the evening, but in that dry bracing air the warmth seemed pleasant; and it was certainly a delightful change from the freezing temperatures of the previous nights on the Deosai.

I usually confine my return presents to a little medical advice, which is sure to be demanded by sundry officials, and some tabloids or other medicines. But on this occasion I presented the Tehsildar with my old pony Lancelot. For fourteen years he had served me well, but was now getting beyond the strenuous demands which at times a doctor has to make on his mount. I did not want to shoot him, and was not willing to sell him to become an *ekkha* pony, beaten and half-starved by native drivers. I knew that his size and appearance would add to the dignity of my friend the Tehsildar, and secure him a comfortable retreat, and so it proved. The gift seemed appreciated, and Lancelot closed his eyes a year or two later in dignified retirement.

Next day the Rajah Ali Shah called, and we returned his visit and took some photographs. The Rajah's mansion is a modern building of no special interest. The former palace was destroyed in the wars. It was near the fort hill. We went to see the old castle on the side of the hill. There are large, well cut granite stones, and an archway leading to it is cut in the solid rock. This masonry looks very ancient. The more recent work is of a local stone. I noticed some very large beams of cedar which must have been brought from a great distance. The position is not as strong as it looks, for it is commanded by the hill above, which, though steep, is by no means inaccessible for hill-warriors, as the Dogras proved when they captured it. The young Rajah came with me to the State dispensary, where I saw a number of patients. The Babu doctor in charge was a lazy pot-belly; but the people spoke well of his predecessor. There is some fever at Skardo, possibly malarial; I took some blood films,

Polo at Skardo.

but no parasites were found in the slides. A good many Baltis go down to the plains and work as navvies in malarial places, so it would not be surprising if they carried the germs in their blood. There are certainly Culex mosquitoes, but I am not able to affirm that anopheles do not exist, as my opportunity for observing was so little.

I asked the Rajah about his ancestors. There is always a pathos about these fallen monarchs, even of petty States. "One of my forefathers, named Makpon Ali Shah," he said, "conquered Gilgit, and even as far as Chitral, where he planted a chenar-tree, which is still to be seen there.

"Another conquered Purik and Ladak; we Rajahs of Shigar and Rondu are also descended from Ahmed Khan, and our families still intermarry with Kharmang and Khapallu.

"Had we Rajahs held together, the Dogras would not have conquered us: we were a free people, but there was too much jealousy."

"Do you ever go down to Kashmir?" I asked.

"Yes, sometimes we are called to be present in the Darbar at Jammu; we have a *jagir* near Trahal, in Kashmir, where some of the family live." Apparently some were sent there as hostages for the good behaviour of the rest in the old fighting days.

Rajah Ali Shah and his sons seemed more familiar with Persian than with Urdu literature, so I gave them a Persian New Testament, and we talked a little about religion. Some tea was brought, very sweet and flavoured with cinnamon, also some very well made biscuits, with a delicate taste of saffron. Then came a cup of cocoa, and a *nazar* was brought, including a roll of the very soft homespun called *pashmina*.

In the evening the Rajah sent dinner to us by the hand of Wazir Rustum, consisting of rice and meat, a fowl and vegetables, with grapes to wind up with. The sunset was

most glorious; after the light had passed off the valley, the lofty ranges to the east and north took the most exquisite tints of velvety madder with violet shadows, the snows glowed an intense orange pink, and were reflected in the broad rippled waters of the Indus.

We arranged to rise early, and had a wakeful night, for a dog, a cat, and some mice by turns investigated the bread basket and the *dâlis* spread out on the floor. I "shished" them off, feeling grieved at their irresponsibility, for by rights the cat should have caught the mice and the dog chased the cat off the premises. But we made a good start while the sky was still lemon-tinted and the sun behind the hills. An hour from the town we crossed the Indus by a very solid ferry-boat, taking twenty of us at a time. The river is there about 150 yards wide, it is deep, and flows fully 4 miles an hour. The Shigar River joins it just below the town, and is wider but shallow, and rather choked with sandbanks, owing to the enormous amount of material swept down from the giant glaciers to the north. We tracked up the Indus by a stony path for a few miles, then turned up a ravine to the left behind an isolated hill, partly trap, and partly mica-schist and shale.

More than one traveller and geologist has described the extensive signs of former glaciation in this region, so I will only mention a few salient points: the rounded bosses and spurs up to 1,000 feet and more, the perched blocks upon the ridges, the stratified lacustrine deposits on the fort hill, and still more prominently above Kuardo, the contorted clay strata not far from the Sikh fort at Skardo, the great embankment-like moraine coming down from the Sutpa *nullah*, with its lakelet, and the similar lakelet at Katsura, with associated moraine, including enormous erratics. These and other signs point to more than one period of glaciation, with intervals during which, as we saw on the Deosai, there were extraordinary gravel and other alluvial deposits, lacustrine as well as fluvial. Then came re-excavation, probably

connected with renewed though most slow and gradual elevation of the Karakorum range.

The Shigar Valley reminds me strongly of the Nubra Valley, though at a much lower elevation (nearly 2,500 feet lower)—its general direction towards the south-east, its broad trough with rich cultivation, the great glaciers from which flows its wide river, and also the notable evidence of those glaciers having once occupied the whole valley, even if the trough has not been chiselled out (laterally) by them. Ice polishing may be noted on the cliffs high up, especially on the west side, while remains of old moraines are visible on the lee side of any projecting spurs.

So we are fully justified in picturing a sea of ice formed by the glaciers of the Baltoro and Biafo coming down the Braldo Valley and joining the Chogo Longma and its affluents, which filled the entire Basha Valley, and then on to the opening of the main Indus Valley, perhaps even that also (though this is more doubtful) to the gorge below Katsura. If such masses of ice pushed down below 8,000 feet, what must have been the ice-bound condition of all the hundreds of miles of the upper Indus and Shayok valleys!

A mile or two out of Shigar we were met by the Rajah and one or two notables on horseback. He was accompanied by his regal band, consisting of a drum, two clarionets, and a huge trumpet, so a State procession was formed, in which Biscoe and I might have appeared as travel-stained and footsore captives, had not the Rajah insisted on our mounting the gaily caparisoned steeds he had provided. Very welcome was the rest after our toilsome trudge through loose sand, and welcome also was the cool shade of the avenues of willows through which we now rode for miles. The rest-house had been cleaned out for our use, and there we met my old friend Mr. Gustafson, a Swedish missionary, to assist whom was one of the primary objects of our journey. For two or three years he had lived there quite alone, isolated from any Europeans, content with only local

produce, sometimes being weeks or months without tea, coffee, or even sugar. By some amateur doctoring and quiet service he had to some extent won the friendship of the poorer people, though mostly ignored by the Rajah and his retainers, and hindered by any Kashmir officials. He had learnt Tibetan at Darjeeling, and had found it easy to acquire a colloquial knowledge of Balti, which is very similar. He said: "Tibetan is not pronounced as it is spelt, but Balti is spoken as Tibetan is written, with of course the addition of a number of Persian and Arabic words derived from Mohammedan prayers and from the Koran."

That afternoon we called on the Rajah, and again started our greengrocer's stores. This was followed by a very spirited game of polo on the finest polo ground in the Himalayas. It is always kept irrigated, and has lovely grass. An English officer (Birney, of the Hussars) turned up from *shikar* and joined in the game. A great and very gay crowd looked on. I amused myself sketching some of the heads. Some were strikingly handsome boys and men of a high Aryan type; comparatively few appeared to be Mongolian.

During the next day or two patients came crowding in from villages near and far. Most of these were chronic cases of rheumatism, dyspepsia, asthmatic bronchitis, and ophthalmia, for whom we could not do much, though well supplied with all necessary drugs. But there were a good many satisfactory cases for surgical operations. So the little wooden shelter where the Rajah usually sat to watch the polo was put at my disposal and turned into an operating room, in which day by day I did fifteen or twenty operations, of which four or five would be cataracts, one or two tumours, and other minors, including tooth extraction. It created a furore. All ordinary village work was suspended in order to watch the doctor at work. Two or three times a day, when a good crowd was assembled, Gustafson would sing one of the Balti hymns he had composed, and then speak a few words explaining some simple Christian truths.

Rajah's House at Shigar.

Treating Sick at Shigar.

Some of the upper class men asked for Persian gospels, which we gave them. This work kept me busy from 9 a.m. till late afternoon, and left but little time for making the necessary arrangements for a forward journey beyond the possibility of local supplies. However, in the early mornings we scrambled up the hill-sides and explored the immediate neighbourhood, the old mansion formerly inhabited by the Rajahs, a ruined fort on the hill behind, and some interesting mosques. These latter, though now in bad preservation, have been fine buildings, constructed almost entirely of timber, probably pencil cedar, and are over three hundred years old. The general appearance partly resembles the mosques in Srinagar, but partly the Turki style of the north. The pillars, doorways, and arches are all carved in bold patterns, and some of these, the sacred wheel, the svastika, and so on, trace back to a remote Hindu or Buddhist influence.

The Wazir Haider was appointed to accompany me up to the Nushik Pass, and we often conversed about his people.

He said: "Some of the Baltis came from the Gilgit country, others from Nagar, but my own family originally came from Ladak. Our former religion was Buddhist; even now you can see a *mani* [wall covered with prayer-stones] behind the town of Shigar, and there are images carved on the rocks at the Sutpa road from Skardo to the Deosai.

"The true religion was brought by the Holy Mir; he built eight mosques in this district, and his tomb is near the big mosque."

"Do your people go to Mecca for *haj*?"

"No; our holy place is Kerbela, where is the grave of the martyred sons of Ali, and it is there we go by ship from Karachi or Bombay. When the dead are buried, pieces of wood with sacred inscriptions are put in their armpits and their faces are towards Kerbela."

The Mir above referred to is Mir Yahya (the same as the

Arabic name for John the Baptist), and he was the son of the Mir Sheikh Dāna-āli-dāna, by whose preaching thousands of the Baltis were converted. Apparently the conversion to Islam began with that of the Rajahs in the early half of the fourteenth century, synchronously with the conversion of Kashmir; but it took many generations for the abolition of idolatry in the remoter villages. In a general way one might say that the progress of Islam was by force of arms in the first instance. In many of these countries Mohammedan adventurers, experienced warriors, managed to seize the power, as in Kashmir and Baltistan; but the zealous labours and earnest preaching of holy men, such as Shah Hamadan and Shams-u-din, completed the task, and won the hearts of the people.

One curious thing the Wazir mentioned is that there is no religious ceremony at a marriage. The girl brings her cooking pots and bridal dress; the bridegroom pays from ten to two hundred rupees, and gives large presents, guns, horses, and so on, to the parents, and then there is a great procession, with music and dancing, and a feast. Anyhow, the priest takes part in the feast, even if his blessing has not been asked on the marriage.

I asked him about the route to Yarkand. "Formerly there was a road to Yarkand for trading purposes, and even horses could go."

"Why did the trade cease? Is it that the ice has closed the path?"

"No; it was the Kanjuts [the robber bands of Hunza] who raided the caravans at Jangal. On one occasion, forty years ago, the Nagar men raided the upper part of the Shigar Valley, but when they were returning with their plunder, they lost their way on the Biafo glacier and all perished in the snow; since then we have had peace."

Skardo has been the official capital of Baltistan ever since the Dogra conquest; before that the upper Indus valleys, east of the great bend and as far as Ladak, were divided

into several independent States, sometimes perhaps bowing to one overlord, the Rajah of Skardo or Khapallu, or forming a temporary alliance against outside enemies. Skardo, Rondu, Shigar, Khapallu, and Kharmang each have titular Rajahs who spring from the same stock, dating back about five hundred years. When set free from outside pressure they have not infrequently indulged in internecine warfare of a desultory nature. The people speak a dialect of Tibetan, and claim to have come from the east and to have conquered the country.

Dr. de Filippi in his recent book quotes Ujfalvy, with whom he agrees, to the effect that the Baltis are not Mongols, as has been asserted by most travellers, including Drew, Biddulph, and Shaw, and points to the Aryan features of the chiefs. I think it must be admitted that among the upper class Baltis, and in the villages along the western border of Baltistan and the main route along the Indus, there is very considerable admixture of Aryan blood. It is a point to which I have given close attention, and in two journeys I took head-measurements. These observations await scientific analysis, but it was very evident that there were three chief racial strains. The ordinary villager, especially in places off the main routes, is an almost pure Mongolian, differing but little from the Ladakis. He has a bullet head, at least an inch less in girth than the average of his neighbours to the west across the mountains. His eyebrows are flat, and his eyelids have a fold, making the eye appear sloping and narrow. He is usually almost beardless, therein contrasting strongly with the Brokpa or highland folk who are met with in parts of the upper valleys leading to Astor. Those Brokpa are remnants of the Dard races which formerly occupied the country. One cluster of such are still to be found at Dah-Hanu, halfway between Kharmang and Ladak, and have become Buddhist. Another group of Brokpa is found in the upper Dras Valley.

Then there is the admixture of Nagar blood in the Basha

and Braldo valleys. Numerous families of Nagar folk have come across the passes during the last two centuries and intermarried with Baltis. In addition, however, to this, the upper classes, the Rajah families and their connections, make a distinct claim to be of Persian descent (Biddulph says Egyptian) ; they are taller and slighter in build, their heads are long antero-posteriorly, they have wavy black hair, long straight or slightly curved noses, and oval faces. Some have sought to invoke the great invasion of Alexander to account for this mixture of blood from the far West. It is to be remembered that his armies swept right up the Oxus, as well as along the southern Hindu Kush; and the local tradition is that the name Skardo is derived from Iskander. But these are mere conjectures; those interested in the subject should consult Biddulph's "Tribes of the Hindu Kush." My own impression is that the Rajah families were originally Shins, which is curious if we regard the Balti-Mongolians as a conquering race, who have driven the Shin aborigines to the west.

To put the question in a nutshell, one may say that the Shin races (*i.e.*, the Dards) first occupied the eastern Hindu Kush, gradually spreading up from India, and bringing with them Indian religious thought and customs; the Yeshkun peoples, speaking Burisheski, came from the north-west, but at what period no one can say, for there are no data; the last comers were the Baltis from the east, but whether this was before or after the Christian era is yet doubtful.

The journey up the Shigar Valley was very pleasant, as the sky was overcast and the heat less. Harvesting operations were being busily carried on, and one heard the songs of the village women as they cut the corn and carried it to the threshing floors. Where barley had been reaped a month before, now crops of buckwheat and millet were growing, and we also saw fields of beans, turnips, and tobacco. The flat roof-tops were orange with heaps of drying apricots. The best of these for eating fresh are a pale yellow, but they

are too juicy to keep. The orange and red varieties are equally sweet but more fleshy, and in the dry air and hot sun of Baltistan they dry to perfection. The village women take out the stones of many, and the dried fruit is pressed into lumps the size of a cricket-ball, while oil is extracted from the kernels for lighting as well as cooking purposes. There are apples and pears in some villages. In the upper ones walnuts grow well.

We passed through several villages, and invented a special sentence to memorize the names, "Banker Thomas all *chori* (stolen) cash the *māl* (*i.e.*, property)," Banka Thuma, Alchori, Kashomāl. The last village is immediately below Hoser Gan, a beautiful and lofty peak, which Mrs. Bullock Workman climbed a few years after.

The crossing of the river by skin rafts at Nuno was interesting and exciting. There were twenty-four skins in the larger raft, so we floated lightly even with eight or ten passengers, boatmen and luggage. We crossed first the Braldo River, about 200 yards broad, then a stony plain, above which is a huge old moraine stretching down for 2 miles from the corner spur between the valleys, then the Basha River, which is only 50 yards wide. Coming down the mountains on our left was a beautiful waterfall, which strikes a rock halfway down and springs out from it like a fountain.

Away to the north is a hill of perhaps 16,000 feet height and striking shape, like a pointed lingam, which the Wazir told me is a place of worship common to Hindus and Mohammedans; the latter, however, say that it is sacred because Shah Nasir Pir once sat there. Very many of the peaks in sight have bold outlines: one is like a lance point, another has a cleft like a gateway between two towers. Beyond Tissar village we came to a rough stony path strewn with blocks of white marble from a cliff above, and just beyond this again are the hot springs of Chutrun. These are enclosed and constitute a hydropathic establish-

ment popular throughout the whole country. There is a separate enclosure for women and a small ruinous shrine with votive flags. But the ecclesiastical authorities have not exploited the possibilities of the position so much as is usual in Kashmir. Outside the enclosure are several tanks of cooler water, in which some sick people spend hours. My friend and I had a bath, and at first could scarcely endure the heat. At the steps the water was 108° F., and nearer the source it was 113° F. After our dip we came out as red as lobsters.

There are two *mêlas* here in the year—one at the time of almond blossom, April, the other in late autumn. The springs have a well-deserved reputation. The wife of the Rajah of Rondu was undergoing a cure at the time of our visit. Women of the neighbourhood after delivery spend eight days in the hot springs, and it is said they never suffer from puerperal fever.

The villages in the Basha *nullah* looked to us most charming, with fine groves of walnuts, orchards of apple and pear, and terraced crops of buckwheat then in snowy blossom. Even the grass land is terraced and irrigated, and produces splendid crops of hay full of flowers. At each camping-ground patients soon collected. I sent off all the cases of rheumatism and skin disease to the hot springs.

Arundo is the last village up the valley, and is too high and too much shaded by the mountains to ripen crops properly. The flat roofs of the huts form a continuous terrace, on which the whole population live during their three warm months. Below is a large underground village. One looks through the roof opening, which is the only door and window, down into a top story where the human inhabitants reside for nine months, while below is a cellar for the animals. The Arundo colony is not Balti, but Nagari, and only came from Haigutum three generations ago. They seem a hardy, enterprising people, but poor agriculturists. We made big demands upon them for

porters and mountain guides, and the community showed its displeasure. Their allegiance to the Kashmir Maharajah or the Rajah of Shigar is a grudging one, and, unlike the Baltis, they grumbled freely. When it came to paying off the porters from the lower villages I was shocked to hear from Mr. Gustafson that we had been travelling *begár*, that is, with unpaid labour, and did my best to remedy it. It was wonderful that the porters had not complained to me. It shows the patient submissiveness of the Balti, not so much to the European, but to the ruling class, for it was Wazir Haider who was making all my arrangements.

Above Arundo we did some glacier scrambling on the Niamul Gan. The natives said that it had advanced of recent years, and also the snout of the great Chogo Longma, which fills the main valley to within a mile of the village. Drew described that great glacier thirty years ago, and it has since been explored and mapped up to its sources by Dr. and Mrs. Workman, who also made a very high ascent at the head to over 23,000 feet. We halted the Sunday at Arundo, and, as usual, patients kept me busy, and Mr. Gustafson sang and preached to the villagers, who all crowded together on the roof terrace. It was a pleasant camp by some dwarf willows—the only trees—not far below the moraines of Tipor.

Our start next day was delayed by having to rearrange all the loads in packages not exceeding 50 pounds, while most were lighter still, for each porter carried in addition ten days' food for himself and his heavy sheepskin coat. We seemed quite a little army—the Wazir and his men, the *shikaris*, thirty odd porters, and one or two goatherds driving our little flock of milk-supplying or meat-giving animals. In the first hour we crossed the broad, very uneven glacier, which is entirely covered with dark debris and rocks. Among these I noticed gold-coloured stones of yellow mica embedded in a schist.

This led me to ask the Wazir about gold. It appears that

a good deal of that precious metal is washed from the river sand below the glacier every autumn. There are a few special men who do the digging and washing, and their headman, who is reputed to have made a good deal of money, lives in the next village down the valley. The ordinary labourer only earns about five rupees a month by such work.

Our path turned up the Kero *nullah*, and after ascending steeply up the narrow valley, almost blocked with talus and moraine debris, it opened out, and we were again among shrubs and Alpine flowers. There was indeed an excellent path in many places along the trough outside the lateral moraine of the Kero glacier. In one place was a perfectly level meadow, an old lake-bed, called the polo ground, *shaghran*, by our men. One large glacier came in from the north, and a small one from the south. The flowers were beautiful in places, the borage and silene, acroclinum and sedum, with gentian and geranium, already turning crimson with the first kiss of autumn.

In the afternoon we bathed in a little tarn beside the glacier, but found it bitterly cold. There was a slight snow shower, while evidently more was falling on the mountains ahead. Game seemed plentiful. The *shikaris* pointed out the fresh tracks of a red bear and then of a snow leopard, and then we saw a herd of eight ibex on a spur half a mile to the west, but only one or two males were with them.

Next morning our tents were frozen stiff, and we had to wait for them to thaw. So it was not till 8.30 that we actually started, and practically the whole march was across and along the glacier. Here and there were huge crevasses, which the *shikaris* called *zindán*, *i.e.*, dungeons, while the smaller ones were called *sezgah*. They guided us very well, and were very surefooted and self-reliant. Even the porters with their heavy loads did not appear to wish to use our Alpine ropes, though once or twice the path lay along a knife-back ice crest, with yawning chasms on each side.

At Ding Bránsa were some old shelter-walls which the

men said belonged to a former century. As we approached close to one of the rock shelters a large brown bear came out of it, and seeing us made off at a lumbering gallop up the slope. No one had a rifle, and the only pity was that there was no camera ready for a snapshot. A mile or two on is Stiatbu Bránsa, with some more shelter-walls, on the north side of the glacier high up an old moraine. Below it to the south and west were tremendous seracs, and to judge by Zurbriggen's account of the Nushik La, it was through these seracs that he had to cut his way; but the route I followed was quite easy, higher up on the right. We were now at about 16,000 feet. The clouds had cleared, and there was a bright moon lighting up the tossing icy waves of the converging glacial seas. The shadows of our tents and figures were black in the seracs below.

We gazed on the mysterious beauty, drinking it all in, and wondering what the morrow would bring. Would it bring success and a descent to the Hispar?

By 5.30 a.m. we were stirring, had a cup of hot cocoa, and were soon tramping over the firm snowfield with practically no crevasses. It was a very easy gradient, and we were scarcely an hour to the summit of the col, which ended in huge cornices and precipices; and far below we saw the Haigutum glacier, and then the dirty striped surface of the Hispar, beyond which was a splendid snow mountain, of Jungfrau type, but twice the size. The old guide, Rahim, from Arundo, probably knew the way, but waited to see our intentions. Up on the right we saw a rounded corner, probably the mound described by Zurbriggen, so retraced a little; then went up the steep snow slopes to some big rocks called by our people Garfo-fong Bránsa. Another hundred feet up the slope old Rahim pointed to a crack in the cornice, which had so far been continuous.

"This is the old path," he said. "It is thirty years since I was here, but I know the place."

There was a crack, which with the help of our two ice-

axes was quickly widened into a tunnel leading down to the hard black ice slope below the cornice. About twenty yards beyond this there was snow, so we hacked a path along the face, and I found the snow slope safe and in good condition. While standing there we heard a hissing sound, which gathered in strength for a few seconds, and then a crust of new snow which had fallen the previous day peeled off and slid down. It warned us of what was to be expected as the sun grew in power. We had only advanced 100 yards in two hours. The porters put their hands to their throats and said "Qatl Karo" ("Slay us"). We lined out a full length of Alpine rope, anchored it above the crack, and I placed a strong *shikari*, Sultana, at the edge of the band of ice. G. B. then followed my tracks; at one place he slipped, but clung to the rope, and Sultana almost instantly grasped him.

After this we again improved our steps, and then one by one the porters came without loads, which were brought over by the *shikaris*, who worked manfully. My crampons gave me great security, and I went backwards and forwards several times fetching the porters. It was another two hours before the whole party was assembled and roped for further progress, and I felt that any real difficulty below would compel retreat. I pushed on with some picked men, and we descended a few hundred feet, but were brought to a halt by crevasses. The porters collected on a snow mound.

Zurbriggen's description corresponded with what we saw. To our left was the cliff below the col; to our right the seracs of a small glacier; below, in front, were snow slopes, too steep to see down, though practicable where visible, but right along the whole length was a yawning bergschrund, from 15 to 30 feet wide. Zurbriggen's ascent depended entirely on a single snow bridge; that was in June, now it was September. We spent an hour tracking along the schrund, first to the left, then to the right. My journal written

that evening says: "I found a bridge of thin new avalanche snow, and tried to get over, crawling. It broke away under me, and I was hauled up. This bergschrund is not less than 30 feet wide and from 30 to 60 feet deep, partly blocked in places by some soft avalanche snow. The upper edge is only practicable at the point I descended, and is very treacherous. The seracs to our right are worse, and during the day several times pieces of the cornice 1,000 feet above us broke away and caused small avalanches. Again I tried to the left, but obviously no old snow bridges could be expected, and the thought of our porters and servants demanded retreat. Many of the porters were weeping aloud, 'Boo! Boo!' Three or four of them left their loads and began to hurry back. The *shikaris* picked up these loads, and by sunset we were back through the ice-tunnel and all safe at Garfo-fong rocks. There we halted for the night and hastened to get some food, for since early morning we had eaten nothing but one or two biscuits and dried apricots."

The sunset lit up the mountains of Hunza and Nagar to a glowing burnished copper, with pink snow and purple shadows. I tried to sketch, but the light too quickly died out. We gave up our tent to the porters and made ourselves cosy under the big rock, and before long our Kashmiri cook served up some appetizing mulligatawny soup and a wonderful stew.

A full moon arose and lit up the icy scene, turning it into a fairy world. In the moonlight, as we lay in our bivouac, we vowed it had been a splendid day, and that the grim ogres of the Nagar mountains at which we gazed should yet welcome us. The *shikaris* and porters embraced one another when all the party assembled at the rocks, and then came to touch my hand and say "Mubárak." We lay in warmth and comfort, but did not sleep very much, perhaps on account of the altitude, which was over 17,000 feet. Next morning we discussed the situation

That we, with a few selected men, could get down to Hispar seemed probable, but on the other hand it was certain that they could not return by themselves, and that a very small fall of snow would close the route behind us as it was so late in the season. So we constructed fresh plans for a journey which should give us a view of some of the range farther east.

The return march down the valley was quickly accomplished, for the loads were now light, all the fuel having been burnt and most of the rations consumed, and the porters kept up with us, scarcely pausing to get breath.

The views down the valley after leaving the Kero glacier were very beautiful; in front was the beautiful spire of icy Tipor, framed in by the granite ribs of our *nullah*. The birch-trees with their delicate sprays, now turning lemon yellow, afforded an intense contrast to the deep blue of the shadows. The people of Arundo saw us coming and streamed out to meet their brothers and friends, kissing them on the cheeks. There was great joy and festivity in the village. It was fortunate that we returned, for clouds came up, and next day it rained and snowed most of the time.

At the next village we caught up the Wazir, who had been sent back from Stiatbu before we tried the pass. He said that when he reached Arundo all the village folk came out to abuse him, the women tearing their hair and their clothes and throwing dust in the air, exclaiming that he had sent their men-folk to destruction. He says that the pass was well-known in former days, and that the time to go is when the mulberries ripen, late in June, when all the crevasses are covered in. At one village—Tsabiri—some large specimens of talc were shown me, and I was taken to an outcrop, where sheets a yard square could be obtained. The commercial value of this would be great if it were in a more accessible place. All the way down the valley we were besieged by patients; at one village I did twenty operations for trichiasis (in-turned eyelids) before breakfast.

We were looking forward to a raft journey which would save us the tedious march down the valley. They had only enough goat-skins for two rafts, so we chose our most necessary baggage and sent off the rest by the coolies. Soon we were riding on our twenty goat-skins, with a cold wind behind and tossing waves around, and a roar of breakers ahead like the mutterings of a coming storm on a shingle seashore. Our steeds pranced, and the raft dipped its corners into the waves, while on each side stood a watchful Balti with the long light pole he used at times to fend the shock of contact with a sunken boulder, or to steer with, used like a paddle. Sometimes the raft would spin slowly round and round, so that we alternately looked back at the now dark and gloomy gorge of the Basha, then up the cliffs of the Braldo, and then ahead down the open valley. We passed our porters clinging like ants to a tiny scaffolded path along the face of a cliff on the right bank. Here and there a gleam of sunlight was reflected from a snowy ridge, but the peaks were veiled by the dark clouds, under which here and there the grim snouts of glaciers might be seen crawling down the ravines, and the glacier streams pouring over rock ledges and leaping into a spray-hidden abyss.

The contrast with the toilsome walks over desert sand and stony plain much enhanced our sense of enjoyment, and we felt it was worth travelling far and roughing much to have such an exhilarating experience. Nor was the trip without incident. Now and again we were carried among shoals and dashed against rocks, and soon one or two of the goat-skins were *hors-de-combat*, and one dragged loose behind, so that we no longer rode high over the water, and several waves broke over us, wetting us above the knees. Our boatmen then landed on a sandbank, re-inflated the skins, and adjusted the loads. Once more we were off at a great pace, rushing round corners, warded off rocks only by the greatest efforts of the *zakwalas*, who kept

up a constant shouting; then again we were stranded in a shallow side-channel, and a portage was necessary to the main stream. In many places the rapids swept us down at nearly 10 miles an hour; below one of these we passed through a fair-sized wave which drenched us, and then gyrated in a whirlpool which sucked the whole raft some inches under water. It was fairly exciting, and we could have travelled down to Skardo itself in a few hours; but we wanted our tents and baggage, so stopped for the rest of the day at Gulabpore, where I found a number of semi-blind folk needing my help, and did twelve operations.

Next morning the clouds had cleared and everywhere above 12,000 feet we saw a deep mantle of fresh snow, which made us thankful that we were not snow-bound on the Hispar glacier, and that our Arundo porters were safely at their own homes. We made an early start on the raft. Near Gulabpore the rocky mountains have been literally planed by glaciers from the valley level up to 4,000 feet above it. Subsequent to this there have been enormous alluvial deposits, which have again been mostly swept away by the river. In four hours we went ashore at Shigar, where I was at once very busy, receiving official calls and sending off letters. Gustafson welcomed us warmly, and Rajah Azim Khan called. We discussed plans and arranged to start within two days by the Thalle Pass to Khapallu. Next day I performed eighteen eye operations before breakfast. Our fame had spread, and those who had been cured during our first visit a fortnight before returned to show themselves. I had done several cataracts, and was fortunately able to supply these patients with spectacles.

I preached myself twice by interpretation to the patients as they seemed more attentive than when Gustafson spoke. One or two of the upper class men asked for books. I was more than ever attracted by the fertile beauty of Shigar and the pleasant manner of the villagers, with whom ac-

quaintanceship seemed quickly to ripen into personal friendship. I parted with real regret from Wazir Haider, who was a kindly old gentleman, though scarcely fitted for mountain exploration. The Rajah and others of the notables seemed fond of flowers, and asked me for seeds. The upper class Balti men tuck asters or cornflowers into the brim of their round caps. So on my return I posted some seeds, and hope that some of the floral charmers of my Srinagar home are now being propagated in various Shigar gardens.

CHAPTER X

KHAPALLU AND THE BROKPAS OF DAH

WE chose the high route to Khapallu which crosses the Thalle La, a pass over 16,000 feet, and we hoped thus to get a wide view of the Karakorum mountains. Long before the sun was over the mountains we had left the orchards of Shigar, and were threading our way up the defile behind the old fort. In most places it is narrow, with only narrow strips of cultivation. There is much alluvial deposit, which the river has cut through. Some miles up they showed me a small digging from which serpentine, which they call jade, is taken; it is of a dull, sage-green colour and not so hard as the Chinese jade. There are one or two men in Shigar who work it into teapots, pipe-bowls, and cups, and the Rajah gave me one or two small specimens.

At Bánka Haral (11,500 feet) were shelter-walls (*bransa*) by the junction of two valleys. We had left the granite and gneiss, and above this were limestone hills.

Apparently (Lydekker) the limestone is in very close relation to the primaries, and the metamorphics are scarcely represented except by some greenish slates.

The valley leading north would give access to an almost, if not quite, unexplored mountain region towards the great massif of Masherbrum, but we turned eastwards up a grassy Alpine valley, with a scattered jungle of pencil cedar-trees, very refreshing to the eye. We camped above this, and next morning reached the summit of the Thalle Pass by nine o'clock. It reminded me somewhat of the Col de Feret,

SHAYOK VALLEY NEAR KHAPALLU. MASHERBRUM IN THE DISTANCE.

with its grassy slopes on one side and glaciers and crags on the other. Marmots screamed at us, but we saw no big game; probably the Rajah and his people hunt too much. This *nullah* has since then been reserved for his sport, a very desirable arrangement from both points of view, affording him healthy recreation and preventing the sport in other parts of Shigar being ruined by promiscuous shooting.

At the summit of the pass (16,000 feet) we were on fresh snow. It was an absolutely cloudless autumn morning, with a wonderful view to the west of Hoser Gan and Haramosh, but to the east and north we were shut in by near ridges of great height. We pushed on all day in order to reach a village for our Sunday camp. The valley was filled above with a fine glacier, pouring out of its well-marked basin in three great masses divided by rocky knolls. Below this the hill-sides were red with the autumn-tinted grass, crimson-leaved geraniums and bushes; besides a sort of rowan with red berries, there were berberry and dwarf birch, and lower down we came to rose-bushes. The rocks were grey limestone, pink marble, a bright reddish conglomerate, and slaty shales.

At Daltiri we had a good many patients of a more pronounced Mongolian type—a rough, jungly, jovial folk, who regarded Gustafson's address as a good joke. It drizzled much of the day. Below this the valley is usually wide enough to allow of cultivation, which is almost continuous, and the villages appeared populous. There seemed little possibility of bringing more land under the plough, and every year some of the men go off to Simla and other places to earn money as navvies. Next day we pushed on to Khapallu, crossing the wide Shayok River by skin rafts, which caused much delay, and so it was considerably after dark before we pitched our tents under the walnut-trees near one of the upper hamlets.

Khapallu is the capital of one of these small Balti States,

and according to Francke it was in some respects the most powerful; this may be partly accounted for by its position, so safely ensconced behind the Ladak range, and remote from the assaults of Kashmir Kings on the south or Shin Rajahs on the west. Even when Ladak was plundered from the north by a Turki army, which raided down the Indus Valley to Skardo, the little principality in the Shayok Valley remained safe. And when a king of Ladak measured swords with the Baltis, it was Rajah Ali Mir of Khapallu who drove him out of Purik and dictated peace in Leh. The gist of the story as related by Francke from Tibetan chronicles is worth briefly narrating, as it throws light on the spread of Islam.

It was about the end of the sixteenth century. The Rajahs of Kartse, in the upper Suru Valley, and of Chigtan, near Mulbek, had both become Mohammedan not long before, but they had quarrelled. Their overlord, King Jamyang of Ladak, decided to assist his nearer neighbour, the Chigtan Rajah, but started in winter, and after crossing the passes into Purik, the Namika La, 13,000 feet high, and the Fotu La, a little higher, there was a heavy snowfall. The Balti army avoided fighting, and by dint of stratagem, ever putting off battle, Ali Mir of Khapallu succeeded in holding the Ladakis until they were starved out. The army was annihilated and the king taken prisoner. The victorious Mohammedans plundered the monasteries and burnt the libraries. Ali Mir somewhat generously set King Jamyang Namgyal free, and gave his own daughter to him in marriage, perhaps thereby hoping to win over the king to Islam. The Lamas rose to the occasion and found out that the girl Gyal Khatun was an incarnation of the White Târâ. The Tibetan chronicles say, "Now after Ali Mir had prepared a feast for all the soldiers, and Gyal Khatum had put on all her jewels, he invited Jamyang Namgyal to mount the throne, and then said, 'Yesterday I dreamt I saw a lion emerge from the river in front of the palace and

spring at Gyal Khatun. Now it is certain she will give birth to a male child, whose name ye shall call Sengge, the lion.' Having said this, he gave the king leave to return home with the Ladak army, and to resume his royal functions."

The present Rajah, Sher Ali Khan, called at our camp on the day after my arrival and invited us up to his castle, a mile or two from the town. From there we obtained a splendid bird's-eye view of the district, for the hamlets of Khapallu spread out below it for miles each way, terraced like a vast amphitheatre and richly cultivated. The stone houses and huts are almost hidden by the beautiful apricot orchards. Everywhere there is the sound of rushing water, as the copious snow-fed streams rushing out of the gorge above the palace are led in well constructed canals for several miles each way along the slopes. Then the wide flood of the Shayok is seen winding through its sandy bed for some miles, and beyond that, to the west, is the well watered and well wooded village of Dowani. On either side of the main valley are great massive pinkish granite ridges, and on the east of Khapallu a wide plateau, 2,000 feet above the valley. I was kept fully occupied by patients, to whom Gustafson talked, and we did not finish till dusk. There were even larger numbers next morning, and I did twenty operations before lunch. The Rajah came down and looked on with great interest, and asked many questions about the hospital work in Srinagar. He showed us over his "town-house," in which there was some admirable old carving. The cups in which our tea was served had come from China, and were ancient and valuable; so also were some of the rugs on the floor.

We enjoyed some excellent Balti short-bread. Late in the afternoon we got free from patients and went up to the castle, where a very lively game of polo was in progress. It was a gay sight. The Rajah, who is a fine

horseman and skilled player, was dressed in a suit of daffodil yellow, with turban to match. Most of the players were adepts at the game, which was really most interesting to watch.

The chief feature in which the game differs from Western polo is that all the players start at a gallop from one end, and that the leader throws the ball into the air and strikes it with the full swing of his stick before it touches the ground, frequently driving it the whole length of the ground and through the goal-posts, which are marked by white stones. But the goal is not counted unless one of the attacking side dismounts and picks up the ball before any of the defenders can knock it out again.

When a goal is won the whole of the band, consisting of one or two drums, several reed flageolets, and one huge trumpet, strikes up a tune, repeated over and over with little flourishes thrown in, and a tremendous booming bass.

B. photographed the winning team, with the Rajah seated on horseback, inhaling tobacco-smoke from a 6-foot long hookah pipe.

We saw a good deal of Syed Habib, the head priest of the Nur Baksh sect, a handsome big man, showing, I thought, traces of Northern blood. He wished to have an unsightly wen removed from his scalp, and bore the operation bravely without chloroform. I handed him a Persian St. John to read, while I went on with other cases. He seemed much taken with it, for he gathered a little group of his *murīds* around him and read aloud to them, with occasional comments, for an hour or more. I gave the Rajah also a New Testament, in which he wrote my name in Persian. In these parts the Injil (Gospel) is always treated with reverence, as it should be by every orthodox Moslem, but as the Koran itself is read rather as a charm than for the sake of its meaning,

and education is most rudimentary even among the few who can read, books so given are probably carefully wrapt up and put away unread.

From Khapallu we went up and across the big plateau on the east. It is covered with old moraines, and has some old beds of glacial lakelets. Before descending on the other side there was a magnificent view of the Karakorums, especially Masherbrum and the peaks of the Saltoro; after that for two marches we followed the stony gorge of the Shayok, with sometimes very precarious paths, nowhere fit for laden ponies. We headed for the Chorbat Pass, which is the chief one across the Ladak range. At its outlet on the north there is a picturesque fortified rock, in a place that would be quite untenable against musketry; and the Dogras under Zorawar had no difficulty in over running the country.

The ascent of the first 5,000 feet was just a straightforward grind up a steep stony path, cooler than it would otherwise have been, as it drizzled and then set in to snow steadily. The range north of the Shayok was specially chromatic, the colours much deepened by the moisture, great breadths of naples yellow with orange bands, then a slaty green followed by a reddish purple—evidently metamorphics—contrasting strongly with the light pink and grey granite of the range we were crossing. We passed some fields at Zyingsten where scanty crops of barley are raised in summer, but now all looked wintry and desolate. Our porters found shelter-huts in which to take refuge from the snow. We started in the dark next morning up the valley, with an easy ascent, and plodded on for two hours, then turned up a steeper slope where there was 10 inches or so of snow. The porters, sturdy willing fellows, only went thirty-five or forty paces at a time, and then halted for half a minute, but the halts tended to lengthen. Thus, slowly mounting, it took us five hours from our camp to reach the summit

of the pass, 16,900 feet. The temperature of the air was 24° F. at midday, and a strong wind blew the snow violently in our faces. In spite of its height the Chorbat is under ordinary conditions of weather a very easy pass, and it is significant that Ladakis going to Skardo with yaks in summer prefer crossing the Chorbat, and then the Thalle La, to following down the sun-baked gorges of the Indus, where they can find no grazing for their animals. We went quickly down the southern slope and were soon off the snow, and steadily descended to Hanu village, which we reached before dusk. The days were now drawing in, for the autumn equinox was past, and the weather of the past three weeks was a warning against mountaineering in the Karakorum at this season.

When marching next morning we saw two ibex who had come down to drink from the river quite close to the path. They were startled, and sprang straight up a very jagged difficult cliff; and we watched them scramble from ledge to ledge till they disappeared 500 feet above us. A bright scarlet lichen here almost covered the granite cliffs, especially on the shadier side. It is no wonder that in warm sunset lights the mountains often glow as if they were red-hot.

The district of Dah-Hanu, which we now entered, is one of great interest to anthropologists, as we have an Aryan race left like a little island in the midst of a flood which has swept all round it without submerging its characteristic features. We were fortunate in arriving on the day of the chief annual festival and camping quite close to the sacred place in Dah village. People had come in from near hamlets for the festivities in their gala costumes. The women wear the usual Ladaki costume—a loose gown of coloured, but dark, homespun gathered in at the waist, with trousers which fit tightly round the ankle, and a sheepskin slung over the back. Their head-dress is a dark cap with ear-flaps, but instead of the Ladaki turquoise ornaments, these wear large mother-o'-pearl ones, and a long tailpiece

"Zak" Raft.

Dah-Hannu Women.

with silver or brass engraved platelets dangling down to their knees.

The men wear the usual Buddhist cap with flowers, chiefly marigolds, tucked in round the brim, and a short gown, baggy trousers, and coloured felt boots; round the waist is a kumerband, and over the shoulders, for this special occasion, a coloured shawl with embroidered ends.

They are a handsome, well-set-up people, averaging 2 inches taller than the Baltis, and with long oval faces, straight or aquiline noses, prominent chins, and a profusion of black hair worn in long pigtails, and also with beards and moustaches. I measured a good many heads. They certainly resemble the Dards of Upper Tilel more than those of Astor; but their features appeared to me less coarse. In language I believe their Brokpa dialect is also akin to the Dard dialect of Gurais, but without the Kashmiri intermixture which is noticeable in the latter.

They are the only Buddhists among the Dard peoples, but their Buddhism is not orthodox Lamaism, but mixed with primitive animistic features. For example, this annual festival is neither like the *Bon* worship of Ladak, still discernible below the upper strata of Lamaism, nor is it Hinduism.

They gathered round a stone altar under a walnut-tree, and on the altar a small fire of the sacred cedar-tree was kept burning, while the people formed a wide circle, some thirty of them, the women all on one side, and sang songs and danced, first the men by themselves and then the women.

I asked a headman who understood Hindustani, "What do you sing songs about?"

"We sing about the hunters who go after the ibex and stalk them up the mountains and shoot them with bow and arrow. In our songs we remember our forefathers who came from Gilgit; they were great hunters and brave warriors."

Mr. Francke thus translates an ancient song, probably the very one we heard :

" Take the arrow, then the bow, then the arrow-shafts and the heads,
Oh boy that art clever at hiding!
Then, boy, clever at climbing:
Then, boy, who art clever at imitating the antelope's cry;
Then, boy, who art clever at getting out of sight,
There the ibex can be seen, the ibex can be seen in a herd!
Now take the arrow, oh boy!
Now take the bow, oh boy!
Then take the arrow-shafts and heads,
Boy that art clever at driving them together;
Boy that art clever at driving them to heaps;
Thou that art clever at singling out the best;
Thou that art clever at shooting them!
Offerings of flour, butter, milk, and water,
Must now be brought! Honour to thee, oh God!"

As they sang the people turned to one another laughing and gesticulating; and now and again one would come out in front and dance by himself, gyrating slowly, and waving his shawl in a simple but graceful manner. Then all stopped and sat down to a social feast with barley-bread and *chang*, the light freshly brewed beer of the country. Perhaps one or two of the men had partaken a little freely of this before coming, for their gesticulations were a little wilder than the rest, and their gait not quite steady.

I asked, "Do you worship any special god at this feast?"

"Yes; the goddess *Shiring* dwells in the mountains. She is a great spirit. We give to her the first-fruits of our apricot-trees and of our fields. The special god of Hanu is *Zaṇ Daṇ Lha-mo*, and of Garkon village is *Kaṇ Lha-mo*. Fifty years ago the Gyalpo (King) of Ladak sent Lama priests to convert us to his religion; but this is an old festival like our fathers observed.

"We do not intermarry with the other Buddhists, nor do we eat with them."

If any of these Brokpas has become ceremonially un-

clean, by eating with people of a different caste, he purifies himself with the smoke of the cedar *shukpa* before re-entering his own house.

I inquired about many of their customs, and the statements of Drew and Shaw about them were corroborated.

For example, they especially dislike cows, and consider it contaminating to touch them, and of course they neither eat beef nor drink cow's milk.

There are certain castes among themselves, such as the priestly caste, *Lhabdak*, then the *Rüshens*, then the *Ruzmets*. Polyandry has been adopted from the Lamaists.

A little further down the Indus are other villages of the same people where the inhabitants have all embraced Islam. Their dialect and dress are the same; but they keep themselves quite distinct both from the other Mohammedans around, who are Baltis, and from the other Brokpa, who are Buddhists.

It seems to me Francke is right in doubting the suggestion made by Biddulph that these Brokpas are descendants from captive colonies sent to these out-of-the-way districts by Rajah Ahmed Shah of Skardo in the seventeenth century, after his wars with the Shin peoples of Gilgit. The evidence Francke accumulates from various sources proves that there were Dards occupying all the Indus Valley to Leh itself at the beginning of our era. The great difference of the dialect spoken by these Dah-Hanu Buddhists points to an age-long separation from the Dards of Astor and Gilgit.

Moreover, it would seem certain that they were settled here before Islam appeared on the scene at all; that is, before the fourteenth century. Probably the many conquests and racial movements tended to follow the present natural main routes, either by the Chorbat Pass or by Kargil and the lower Suru Valley, leaving these tribesmen relatively undisturbed in their fastnesses.

Francke tells the following story of the stubborn resist-

ance offered by the Dards to the Tibetan invaders, which reminds us of Samson's end:

"The Dards were besieged in their castle (probably by Tibetans), and when their supplies of food and water came to an end they resolved to die together. So they all assembled in the central hall of the castle, and the oldest man pushed away the stone on which stood the centre pillar supporting the roof, and the falling roof buried them all. A story of the Hanu Dards runs as follows: The Tibetan kings, who considered the people of Hanu their subjects, ordered them to join the rest of the population in doing forced labour. The king was opposed by an old Dard, who told him that the Dards considered it beneath their dignity to be the slaves of a king. This old man was now selected to work all by himself in the presence of the king. But all means failed to make him do any work, and at last he was condemned to be immured. When the wall reached up to his neck he was asked once more if he was ready to work; but, as he still refused, the wall was closed. Still, the old man does not seem to have sacrificed his life in vain for his people; for an almost destroyed rock-inscription, a few miles above the Hanu gorge, is still shown as the edict of the king who released the Dards from forced labour. Unfortunately, the name of the king cannot be deciphered. There is still a proverb in use with regard to this incident: 'You cannot force labour on a Dard, just as you cannot put a load on a dog!' To deprive the Dards of Hanu of their national feeling the last Tibetan kings prohibited the use of the Dard language, and posted spies to report every individual who spoke Dardi."

We visited one or two temples at Garkon, and noted that they were of the ordinary Ladak type; the offerings on the altars were barley and rams' horns.

The priests are Mongolian and seem to be connected with monasteries at Skirbichan, and have really little to do with these Dah-Hanu Brokpas beyond collecting their alms.

We found an interesting cross-route to Kargil on the main road to Kashmir, crossing the Indus by a tiny bridge of only eighteen paces span, consisting of two poplar trunks and a few planks. The river Indus has there cut its way deeply through limestone cliffs, and flows with but little current through this narrow gorge. The water must be of tremendous depth, and looks almost black and oily. I sat on the slender bridge and mentally pictured the turbid flood of this same Indus, some miles wide, at Dera Ismail Khan.

On the next march we ascended to a wide plateau called Llalun—the plain of the gods—nearly 3,000 feet above the river. The plateau is several miles across and has easy rounded passes to the east and south. We tramped across it and down past Sod, where are the extensive ruins of the old fortified village which the Dogras besieged and finally captured when invading Ladak. The ruins would probably repay careful archæological investigation. Late in the afternoon we arrived at Kargil, where post and telegraph offices remind one of the comparative nearness of civilization, and I was once more on ground familiar to European travellers.

CHAPTER XI

CHILAS

SINCE the day that at the Rupal Bridge, almost under the shadow of the mighty Nanga Parbat, a sepoy had told me of how, years before, with some thousands of Dogra troops, he had entered Chilas by the Mazenu Pass, I had longed to penetrate that country. The waste villages of Upper Astor, burnt and plundered by Chilas raiders, and the tales of the few bold sportsmen who had penetrated villages west of Nanga Parbat in search of the famous markhor of that region, seemed to enhance it with all the romance of a borderland. It need not now concern us whether the occupation of Chilas by the British was the natural result of the insolent intrigues of lawless tribes who had never bowed to superior might, or the outcome of the calm audacity of the Acting British Agent at Gilgit, Dr. Robertson, afterwards better known as Sir G. Scott Robertson, of Chitral fame. The occupation was as swift and effective as it has proved since to be beneficial and permanent. So peaceful was the country that only a year or two later I obtained permission to visit it.

Years before, from the natives of Gurais I had heard of unknown mountain passes through which Chilas raiders issued to plunder their villages, and so I desired to find some better route than those hitherto known; one of which made a great circuit by Astor to the Indus at Bunji, and followed that down through one of the wildest gorges in the world; another, the Mazenu Pass, is 17,000

feet high, and the way lies across the glaciers and moraines of Nanga Parbat. Another one is from the south through Khágán and over the Babasar Pass; but I hoped to find one from the east, almost direct from Kashmir, and so decided to go the nearest route to the Kishenganga Valley. This lay through the Lolab, one of the most beautiful fertile districts, where the sparse log huts are almost buried in groves of walnut and orchards of apple and pear. There were three of us occupying the one small single-fly tent, and we travelled as light as possible, as our loads would have to be carried entirely by porters, whose food also would have to be carried: so we had neither table nor chairs, and slept on the ground, becoming quite expert at arranging hip-holes under the straw or fir twigs which we spread under our quilts.

At the landing-place on the shores of the Wular Lake we picked up a dozen strong porters, with a sturdy humorous fellow named Abdulla Bhat as their mate. He had been a *chota-shikari* to some sportsmen, and was ambitious to travel, and full of energy and good spirits. In later years he developed into an excellent mountain-climber, and accompanied my brother on the first ascents of Haramouk and Kolahoi, and went with some of the notable expeditions to the Baltoro glacier; to this day he proudly recounts the adventures of the party with H.H. the Duke of the Abruzzi.

The first two marches were through a beautiful but well known region, where the gold of autumn foliage was beginning to mingle with the rich crimson amaranth. We were tempted by the sweet wild plums, which, though long over-ripe, still hung drying on the boughs. These we gathered and stored for future use, and from the villages we bought three good loads of rice for our porters, and straw ropes, from which the Kashmiris cleverly plait sandals called *pulohor*. These straw shoes are exceedingly comfortable to wear, and give great security against slipping

in steep places and on loose boulders, but require frequent renewing.

At early dawn next day the camp was astir before the blackbirds had warbled their first song in the thickets by the stream. For some hours we walked in the shade of the mountain, gradually ascending a narrow valley; rice-fields were soon left below, then the maize, and we wound our way through brushwood of witch-hazel and viburnum or low thickets of the wild indigo by the side of a stream, tumbling down the ravine in a succession of petty cascades, then zigzagged up the hill among pines, and finally breasting a steep grassy slope, found ourselves, towards midday, on the top of a pass some 10,000 feet high. Our porters were now far behind, so my friend E. W., a keen Alpine climber, suggested that we should ascend the steep knoll on our right, which looked like a twenty-minute walk; it proved to be one and a half hours, and led us from knoll to knoll up for 2,000 feet. But we were well repaid. The panorama was splendid, in spite of the clouds which had gathered. Northward we looked across the deep valley of the Kishenganga to the dark buttresses of a range which culminates further north in Nanga Parbat. Here and there between the towering cumuli we caught sight of snow ridges and granite peaks rising to 18,000 or 20,000 feet. In the absence of reliable maps I sketched the outlines of the mountains, and took the compass bearings of some of the salient points. It was difficult to believe that any easy pass would be found over those lofty, wall-like masses.

The descent from the pass proved very steep, rough, and pathless. Towards dusk we found a tiny level space, and the night was closing in as the porters straggled in by twos and threes; indeed, one man only rejoined us next morning.

All the next march was down through dark, damp forests, wreathed in clouds. No track was visible in many places,

though goatherds seemed to have wandered about. The swift stream, now swollen with rain, swept against the foot of the cliffs on alternate sides of the *nullah*, and had to be constantly forded from side to side. So tedious did it become, removing one's boots, that at last W—— plunged straight through with boots, stockings, and all. At night we came near a clearing in the forest, occupied by some squatters, eight families of them, from Yágistan, the no-man's-land beyond our border. They seemed partly Pathans and were well armed, but peaceably disposed. Medicines soon make friendships, and a little quinine won their approval, and they even sent two men as porters to help us.

A few years ago these forest valleys were almost uninhabited, save by bears. On all sides are dense forests of *Pinus excelsa* and fir, with an undergrowth of hazel and thorns. The winter climate is severe, and snow lies in the shady gullies right on to midsummer, so there is not much to tempt agriculturists; but these hill-folk depend more upon their great flocks of sheep and goats than upon the produce of their fields. They are merciless foes of the forest that shelters them. To make a clearing in which a few rupees' worth of maize will grow, they will by fire and axe destroy thousands of rupees' value of cedar or pine timber; and their goats are responsible for the extinction of many of the fine old birch woods of the upper slopes. The huts they live in are as insanitary as they are extravagant of timber. A level place is scooped out of the hill-side, on which a rectangle of massive logs is built horizontally to a height of about 8 feet, and then a flat roof of similar logs is superposed and a foot of clay is well beaten down on top. One such hut consumes thirty or more large trees, and within a very few years half the logs will become rotten. Apart from this, the primitive construction excludes all air except from the single doorway in front, for the interstices are well plastered with mud

inside; and at night the buffaloes and goats are brought inside to share the air with the Gujar and his family. Let us calculate that there may be 16,000 cubic feet of air inside, quite stagnant at night with the door closed, and say eight human beings and thirty-two animals, such as buffaloes and goats, inside; this would allow 400 cubic feet apiece, instead of the necessary 1,000 or more. It is little wonder that typhus is endemic and phthisis a scourge, in spite of their otherwise so hardy open-air lives.

Although they build themselves huts they are semi-nomadic, spending the summer months mostly in remote jungles with their herds; so it would be a difficult task to reduce them to order or to teach them. The Kashmiris are afraid of them, and not without cause. Now and again a forest guard is knocked on the head, or a shepherd killed in a quarrel, of which the other Gujars would be the only witnesses, and it is quite easy to drop the body over a little cliff, as if the injuries were caused by the fall. In one case the Gujars carried the body of a shepherd back at night to a Kashmiri village, so that the blame might fall on the inhabitants. In time there will have to be a much stricter supervision of these people, but they are active mountaineers, and can easily cross passes towards Khagan and the Black Mountain, where none can follow them.

Our path next day led down the same impenetrable forest and precipitous slopes,* sometimes down by the swollen stream and again high up, when magnificent views of snow-clad hills would be obtained. At a corner we suddenly turned into the Kishenganga Valley, and crossed the deep emerald-coloured river by a slender bridge, 50 feet above the water and 70 or 80 feet long.

It consisted of two great tree-trunks, a foot or two apart, with split planks laid across, and no side rail. At each end

* Within the last few years roads and paths have been made by the Forest Department, and some land settlement has been made of that district.

Scaffolded Path, Chorbat.

some logs projected cantilever fashion to support these great beams. The highwater mark was nearly 40 feet above the then level. W—— is a daring diver, and plunged from a high rock into a deep green pool, in which I joined him from a lower level; but the water was too icy those autumn mornings to disport oneself for more than a minute or two. Our companion, an Indian gentleman, looked on in mild amusement at us "mad Englishmen."

The maize-fields of Khel were reached in the afternoon. The village looked as if it had but of recent years been re-settled; but the very big bricks which turn up among the fields point to an ancient settlement, probably of the period when the old temple at Shardi, a day's march farther down the river, was built. One may infer that the Kashmir power was never widely extended in the Kishenganga, and only for a comparatively short time.

Not far from our camp was an old graveyard, in which many of the graves were marked by a horse's head roughly cut in wood. This kind of tombstone is widely spread through the mountains of this region, and when we read of the effigies of men on horseback made by the Siah Posh Kaffirs and placed in graveyards, it seems probable that these also are survivals of original heathen customs. In some graves the horse-head outline is preserved, but there is a conventional geometrical pattern carved on the surface. We traced many modifications of these shapes through Chilas and Khagan, tending, as we arrived nearer Pathan districts, to lose the distinctive outline, which was still, however, often suggested by a notch. On one of the graves at Khel a St. Andrew's Cross was carved in high relief, within a circle; perhaps no special significance should be attached to this, as elsewhere we noticed a circle with six-pointed decoration inside. Quite recently, near a Gujar settlement in Kashmir, I photographed a characteristic gravestone, carved in a hard slaty stone, evidently the work of a moullah from the west (see photo). When we visited some of the very isolated villages

in Chilas, we saw old ibex heads and horns of the markhor (wild goat) on some graves.

The valley, up which we turned north for two days, was very grand, with forests or hay-fields below, and glacier peaks above, but the weather changed and clouds began to hide the main range, which culminates not far from this in Nanga Parbat. The frowning peaks we saw may have been about 20,000 feet. In front of us was a depression towards which the path seemed to lead, but snow began to fall heavily, and we were driven to take refuge in the caves round a huge rock, in which forty or fifty men might well find shelter. Snow lay thickly all around and the cold was severe. My aneroid registered about 12,600 feet. The only fuel was twigs of juniper, damp and smoky, and we had to take our choice between intense cold and acrid smoke. Nor were our couches on the stones reposeful; so it was with little reluctance that well before dawn we aroused the camp and made preparations for a start. A man brought from Khel acted as guide. The hill-side was steep and the snow slippery, and now and again one of the men fell. Fortunately, the loads were light, and when one man gave in the others were able to carry his also. In three hours we were at the top, there meeting a blizzard that deposited ice spicules on our spectacles and moustaches; but we soon ran and slid down the easy slopes on the other side, and then tramped on till dusk, waiting occasionally for our porters, who really came along very well in their anxiety to reach a village before nightfall. Once or twice we lit a fire and crouched over it. Towards dark we reached the small village of Paloi, and were received in a friendly manner.

This was probably the first recorded crossing of the Barei Pass by a European, but it had long been used by the people, and is suitable in the late summer for horse traffic.

We pitched our tents behind some huge boulders near the village, which gave some shelter from the gale. Mahmud,

the village headman, called and supplied us with requisites. I was afterwards credibly informed that he had committed various murders, but he looked a tame specimen. In his house he showed us with pride a chair on which the Political Agent for Chilas had carved his name. The Hindu Kush tribes use a kind of low chair with a seat about 9 inches from the ground, covered with plaited leather thongs, and with a high straight back ornamentally carved; the whole black and polished with smoke, grease, and age. None other of the Northern Indian peoples habitually use chairs, except as the result of Western influence.

"You want to shoot markhor?" he asked; "yes, there are plenty on the high hills, but we are not now allowed to hunt them. Has the *sahib* got permission from Captain —— [the Political Agent] to shoot here?"

I reassured him that we travelled to see the scenery and to treat any sick people, not for shooting, whereupon he seemed relieved, and told us much about the country and its poverty, and so on. The upper valleys of Chilas do indeed look stony and barren as compared with Kashmir; a few junipers and edible pine-trees dot the rocky bare hillsides, and crops can only be raised, as in Little Tibet, by irrigation.

On our next march we descended 3,000 feet, leaving behind us the snow and clouds, and camped at the little village of Kalabai for a Sunday. A day's rest was very enjoyable, giving an opportunity of washing dirty clothes and getting a bathe oneself. A fair number of patients turned up in the course of the day, some bringing with them small offerings, such as grapes and walnuts.

On the north two or three large *nullahs* lead up to Nanga Parbat, which were explored by Mr. Mummery and his party. The glacier at the head of the Diamarai *nullah* is the grave of the leader and two Gurkhas. The tragic story has been well told by Dr. Norman Collie in his book "Climbing in the Karakorum."

It was the same party which had a year or two before ascended Mont Blanc, by the Brenva route, without a guide. They would not allow the word "impossible," even to the towering ice-cliffs of Nanga Parbat, 11,000 feet higher than Mont Blanc. They tried from east and south; then from the west, which looks more hopeful. Here also ice-cliffs and avalanches baffled them. Messrs. Collie and Hastings then made a circuit to the north, taking the tents, while Mummery was to rejoin them by crossing the lofty snow ridge to the Rakiot *nullah*. He never appeared, and when a week later attempts were made to track him, high up the glacier, amid traces of recent avalanches, they ended in failure. The natives declared that the fairies of the mountains had claimed him as their prize.

In these out-of-the-way villages there are still many old-world customs and beliefs that will change and fade much as the Chilas folk assimilate to their neighbours. In some of the upper villages there is segregation of the sexes for some months in summer, when the men are largely away on the mountains with their herds and the women are left to look after the villages and do the ordinary field-work, in which they are very industrious. The great time for weddings is in autumn, after the crops have been gathered in and the ground has been ploughed up for the barley or wheat. At such times there are great festivities, and musicians are in great request. Intermarriage may have had much to do with the decay of the population, but they often seek brides for their sons in neighbouring villages, and then the marriage processions along the steep, almost pathless, slopes are very picturesque, and the cliffs re-echo to the beating of drums and the lively tunes of flageolets. The Bunar Valley, by which we entered the country, is more secluded than the adjoining valleys to the south, which are more open and accessible; and in those there is a stronger Pathan element. The real Chilas tribesman is of Shin origin, and very closely allied to the people of Darel, Gilgit,

and Astor. It is not many centuries since the outward conversion to Islam. Up to thirty years ago there were still living some old headmen who had refused circumcision and were pagan at heart. Year by year moullahs press more into the country, and travel round teaching the people and collecting alms. The chief moullahs of Chilas have been trained in Swat, one of the strongest centres of bigoted Mohammedanism; but the Chilasis do not seem to be fanatical, and it is only the Pathan elements that seem likely ever to become so. Since the British occupation there has not been any religious trouble.

The distinguishing feature of these Shinaki Indus peoples is that each valley constitutes a petty republic, managing its own affairs. In the neighbouring countries to the north every chief is a Rajah, but here they recognize no chiefs. Naturally, the richer men of the two upper classes, Shins and Yeshkuns, exercise an influence proportionate to their wealth, and under the British regime the Political Agent has become, as regards internal affairs, a constitutional monarch: the people elect headmen, who form a local *jirga*, which deals with all cases in accordance with local custom and precedent, modified by Indian law; for their decisions are submitted to the native Political Assistant and through him to the English Political Officer. It is a system that has much to recommend it, not least being the freedom from the establishment of a system of law-courts, with a wealthy professional class depending on litigation, which is the curse of British India. The whole population only numbers probably 10,000 people, and very few serious cases occur, so the Political Officer is able to personally investigate all such.

The chief offenders are usually men from other parts—Pathans from the south-west, or Gujars. Some of these are landless and lawless, in many instances men who have fled from the Yagistan valleys; so it has been found necessary to register the names of all such strangers and to keep an eye on them.

In comparison with any borderland in touch with Pathan tribes Chilas has been wonderfully peaceful, thanks not only to its position in a sort of backwater, isolated by the bridgeless Indus and by its difficult mountains, but also to the personal control of the successive tactful Political Officers. In fact, so successful have they been that the nearest Indus tribes on the right bank—those of Darel and Tangir—are actually invoking the Imperial flag for their own protection. The chaotic republicanism of these scattered communities may suffice for their petty internal affairs, but is a source of utter paralysis as regards any concerted policy or action towards neighbouring peoples or Rajahs.

The people of Darel and Tangir have in times past paid a small annual tribute to the Rajahs of Punial and Yasin, probably as the sequel to raids across the passes from the north; and they realize that were one of these chiefs to establish himself in their midst, he might enrich himself and all his poor relations at their expense. What Samuel depicted to the Israelites when they clamoured for a king—the levying of fighting men, the building of a palace and growth of luxury in a Court, the taking of a tithe of all produce—of this there have been object-lessons in other parts of the Hindu Kush; and the Indus republics would far rather come under the nominal control of the British Agent at Gilgit, paying no taxes and yet protected by the flag. Even while I write this quiet process of absorption by the desire of the people is being consummated, and it is the best answer to those who years ago wrote of our capable and dashing Political Officers at Gilgit as being mere firebrands.

The track we followed down the Bunar Valley scarcely deserved the name of a path, but since then one has been constructed with great difficulty. The soil of the lower 2,000 feet before reaching the Indus is of the very loosest kind, with no cohesion. Opposite the Diamarai *nullah* it

appears to be just ancient moraine on a gigantic scale, through which the turbid Bunar River has eroded its precipitous bed. We levered a big boulder over the edge of a cliff, and this in turn started an avalanche of stones and boulders of all sizes, rattling and crashing down the cliff into the river, a thousand feet below, and clouds of dust arose which blotted out the sight of the hill opposite for five minutes. Lower down the valley we made short-cuts, almost glissades, down the loose sandy slopes, and in doing so unwittingly missed the path. I scrambled round the face of a cliff by a very precarious goat-track, while W—— plunged into the torrent in rather reckless fashion. Higher up there is at times a bridge and at low water a ford; but W—— found himself waist-deep in a fierce torrent, but clutched a rock and struggled into safety, probably less affected by the incident than I, who looked on from the cliff above, unable to help in any way. At the junction with the Indus stands Bunar Fort, where we were able to recruit our rations, and there we joined the main Bunji-Chilas road.

CHAPTER XII

CHILAS (*continued*)

THE Indus Valley from Bunji to Chilas is one of barren desolation combined with a terrific grandeur scarcely to be matched elsewhere in the world. Vast as is this chasm flowing between ranges which rise above it for 15,000 feet on one side and 23,000 feet on the other, there is no need to invoke the agency of huge earthquakes, or to suppose that this is in a geological sense a rift through the mountains. It is a valley of erosion, and the eroding force is the great Indus, whose vast chocolate-coloured flood is swollen by the melting snows and glaciers of the Hindu Kush, the Mustagh, and the Karakorum, as well as of the North-West Himalaya, draining nearly 80,000 miles of mountains.

We wished that a skin raft had been procurable to save ourselves the monotonous tramp along the sandy banks to Chilas. It would be very exciting to go to the Punjab on a good raft. I have been on more turbulent rivers, and yet there is something awe-inspiring in the sullen booming of this river, with its many eddies and whirlpools and occasional fierce rapids, with waves which would sweep anything from the surface of the raft that was not firmly lashed on. Another excitement would be in passing the independent territory, where it is likely some of the people would do a little rifle practice at the river tripper. An armour-plated skin raft would be a novelty.

On either side of the river there is no cultivation in sight, and scarcely a blade of grass or a leafy branch.

Amid such scenes *nature* seems to be everything and *man* nothing. Man's works are at the most represented by a tiny scratch on the hill-side, where some soil and a few rocks have been scraped away to make a precarious passage for man with his beasts of burden. One winter season with its avalanches and weather-beating almost suffices to obliterate the roadway. Erosion from below, where the fierce torrent sweeps away the causeway at the foot of a cliff, and stone-slides and earthfalls from above, where the melting snows soluflux the soil, would leave no track did not the engineers year by year repair it. Scarcely a summer but some bridges are swept away by swollen streams, and others crushed under the avalanches, which pile up in the ravines to a depth which would bury a house. In such wild valleys man's mastery is sometimes only manifested in the axe, which fells the choicest trees, and in the logs floating down the rapids to become sleepers for railways in the far-off plains. It is in the plains that man's mastery is unchallenged; there he can capture even these vast Himalayan rivers and turn their waters into canals which fertilize the former deserts; here in the mountains these rivers are untamable. There he can erect his domes of marble and minarets of fretted stonework which appear to dominate the flat landscape with their stateliness; here, amid the massive ridges and peaks towering 10,000 feet into the sky, even the Taj Mahal or the Kutab Minar would seem but dwarf and impotent assertions of architectural ambition. The arts of civilization are essentially the arts of the lowlands, where man can hope to establish some supremacy over the forces of nature, where thousands and tens of thousands can cluster together for commerce and for comfort, ransacking the realms of the ocean as well as remote continents to collect all that can contribute to cultured ease. To these the mountains pay a tribute of

mineral wealth, but they do not renounce their independence; and we who travel among them and know them in their varied moods of storm and sunshine, in their rich garments of forest and Alpine flowers, in their awful sublimity of height and depth, in their glorious tints of autumn and of sunset—we see in them not merely the beauties and powers of nature untrammelled by any so-called civilization, but the symbols of the majesty and glory of Him who is the great First Cause. It is in such scenes that we can realize how different might be our existence from that which we lead too often amid the toilsome competition and swift rush of daily life. Even if our bodies are condemned to dwell in narrow, crowded streets, our souls can dwell on hill-tops, far above the mists of metaphysics, free from the materialism of the struggle for wealth, where the pure breath of the Alpine air and the sunlight of God's heaven can animate us.

At last we caught sight of the fort of Chilas standing back from the river on a plateau at the opening of a side valley. This is the first extensive patch of cultivation below Bunji, a distance of more than 40 miles. Even after coming in sight of it we had to cross two deep and stony ravines, and it took three hours to reach the first hamlet. The fort, which is 700 feet above the Indus, has an extensive view, and was built to command the wide plain on which was the former village; but this was used by the enemy in the severe fight which took place the year after our first occupation of the country, and so was subsequently razed to the ground, and the spot is marked by the graves of the officers who fell in the battle.

In front of the present fort is a grove of walnut-trees, and by the south gate is a large tank of delicious clear cold water, in which we enjoyed a bathe. The only Englishmen at the time of our visit were two sergeants, one in charge of the Maxim guns, the other of the stores. These helped us in various ways and invited us to a civilized meal,

which was enjoyable by contrast with our recent primitive habits; for we had neither table, chairs, nor bedsteads with us, and took our meals picnic fashion on the ground. So we enjoyed Sergeant Minto's ample hospitality, and slept at night in the messroom, which is ornamented with trophies of sport and war. Next morning we saw a full parade and the working of the Maxim guns, of which the Yagistan tribesmen stand in awe, nicknaming them "sons of God." A noted moullah across the frontier, before the last attack, had promised to put a spell on the guns to prevent them firing, or to turn the bullets into water; and the failure of his promise, and terrible slaughter of his followers in the fight, has deterred the bigoted tribes from any subsequent attack, though at the time of our visit there was considerable unrest. One of their most fanatical leaders, Mahomed Isa, had just been poisoned; he was a notorious anti-British leader, and had announced his intention of capturing an Englishman and returning him piecemeal. Our two sergeant friends did not appear at all perturbed at the threat, and keenly anticipated an opportunity of winning honour. The actual commandant of the garrison was a Dogra major, but, as Sergeant M. said gleefully, rubbing his hands, "The moment the first shot is fired, sir, they will want the Englishman to boss the show." I am afraid both were transferred a year or two later without getting their chance.

This incident reminds me of the transport sergeant who was leaving Gilgit not long after the Hunza campaign, and writing the inevitable *chits* on behalf of the various Aryan brethren who had served him in any capacity.

To his surprise a Major-General of the Dogra troops also asked for a certificate, and he responded by writing :—

"I am not accustomed to giving chits to my superior officers, but I must say I have always found General X very affable."

I need hardly say that the modern Imperial Service Major-General is of a different type.

At the time I wrote in my diary: "What is wanted to keep all quiet is a bridle-path down the left bank of the Indus to Torbela. This would separate the tribes on the right bank, and as it would command the mouth of each valley the inhabitants would soon cease to give trouble; they are already almost surrounded by British territory, protectorates, and roads. But they need a strong hand to keep them in order, especially as there are everywhere lofty mountains into which regular troops cannot well penetrate."

The time has not yet come for any general description of Yagistan, the independent region between the Peshawar frontier and Gilgit. The upper valleys of Swat and those which drain into the Indus below Chilas have not been explored by any European; they are a sort of no-man's-land. It is not merely that the tribes are fierce and fanatical, and owe no man any allegiance, but also that the country itself is almost impenetrable. The steep mountain spurs terminate in abrupt cliffs, against which in the summer months the turbid swirling waters of the Indus beat with ceaseless throb and roar. From Bunji to Attock there is no bridge, and the only craft are rafts of inflated goat or buffalo skins. From time immemorial the inhabitants have consequently been isolated from one another, thus developing differences of language, custom, and religion, which have perpetuated any estrangement arising from political division. The soil of the main valley is baked and barren, and if ever cultivated, the alluvial flats near the banks have long relapsed into a desert of boulders and deposits of loose sand left by great floods. Only water is needed to transform such plains and terraces into orchards and gardens; but the population is small, and there is ample ground higher up the hills, or in the safer and more fertile side valleys.

And so it comes that Palus and Harband, Tangir and Darel, are to us who live within a hundred miles mere

names, and when we turn to Biddulph's "Tribes of the Hindu Kush" we see how little information even an officer living at Gilgit could collect about the Indus Yagistan. Below Chilas, and especially on the right bank, the people are of nearly pure Pathan race, and speak dialects connected with Pushtu, which blend in the Black Mountain with the Punjabi of the Hazara district.

To the north most of the tribes are Dards, but though of common origin their dialects differ widely, and the Sunni Mohammedans of Chilas are bigoted and bitter enemies of their Shiah cousins farther up the river. The isolation of so many centuries was terminated but a few years ago, and in a dramatic manner. At the time of my first journey to Astor, Chilas robbers still haunted parts of the Gilgit road; they even surprised a picket of Dogras, killed one or two men, and carried off their weapons. The Kashmir troops well remembered the campaign many years previously, when, after tremendous sacrifice of life and hardships from the snow on the passes, a force of over 12,000 men had captured Chilas fort and then evacuated the country, taking a few hostages. An old Sikh warrior vividly described to me his share in the war. It was in the Rupal *nullah* that I met him, and he pointed out the way that he, with some three or four thousand men, had gone—across the glaciers of Nanga Parbat and over the Mazenu Pass—and told of the hundreds of porters who perished from hunger and cold, and how, the few Chilasis guarding the upper valleys having fled, the troops ravaged and destroyed the villages in the Bunar ravine, and then found a way over a goat-track to the Singal, thus turning the flank of the main defence in the Indus gorges and opening a way to the Chilas plain. He told how the siege went on for long, and how at last the brave defenders of the fort, despairing of relief and perishing of thirst, for the Dogras had poisoned the water in the big tank by the walls, rushed out, sword in hand, and with terrible shouts threw them-

selves on the vastly more numerous troops of the invaders and so met their fate.

The Dogra general wisely accepted terms after this success, and taking a few hostages, evacuated the country. Captives were found in Chilas who had been hamstrung to prevent escape, and set to watch the crops. Throughout all Dardistan slavery existed, until swept away by the British *raj*. It may be partly true that Mohammedans seldom enslave "true believers," but in this region of many races and many sects the title of Mussulman is only granted to those who are strictly orthodox, that is to say, of the same particular persuasion as the speaker. Balti slaves were sent to the markets of Turkestan, Kashmiri and Astor slaves to Chitral. It is said that many of the mutineers from Peshawar, who were chased by John Nicholson into the Swat hills, tried to get into Kashmir, breaking up into small parties, and many were kept as slaves by the tribes along the Indus. The Siah Posh Kaffirs made slaves of any prisoners taken in battle, and were themselves in turn carried off to plough and grind corn for Afghan lords.

I once met on the frontier an old slave-dealer, one of the retinue of the local Rajah. He was a truculent-looking scoundrel, hook-nosed and black-bearded, with the characteristic straight-lined pent-roof eyebrows of the Dards. He rejoiced at the memory of the old raids, the wild dash over the mountains, the sudden swoop down on the caravan in the half-light of early dawn, the sharp hand-to-hand tussle, the plunder and the captives. Human flesh had no great value in those days, for a man was worth scarcely as much as a watch-dog of the breed the Chitralis love. Perhaps it might be ten *tolas* of the gold dust brought by the Yarkandi traders—say £10—for a healthy young man, and a little more for a young woman, if beautiful. He and his friends, among them a foster-brother of the then heir of Hunza, the parricide who afterwards brought on the war with the British, boasted loudly of their many exploits, of

the many defeats they had inflicted on Kashmir troops, and of the impregnable position of the Hunza Valley, and they rather seemed to welcome the interest shown by the Government in sending the mission under Colonel Lockart, as it enabled them to play off India against Russia, and so they hoped to get at once larger subsidies from the south and the promised Russian rifles from the Pamirs. Their time also came, but not in the way they expected, as we shall see in another chapter.

Chilas raids came to a well deserved end in 1892. It was known that the fanatical moullahs of Tangir and the young bloods of Chilas were intriguing for a tribal combination against Kashmir, and that an outbreak might come. And it was hoped that the two petty republics, Gor and Darel, both on the right bank of the Indus below Bunji and nominally tributary to Kashmir, would keep neutral, for they knew that the storm would first burst over them, and that no allies could protect them from the Maharajah's forces collected at Gilgit. So the British Agent sent Dr. (afterwards Sir) George Robertson, of Chitral fame, to Gor to confer with the headmen. His escort of fifty men of the Kashmir Bodyguard regiment and a few Punyali levies was sufficient as a protection from stray raiders and to supply that dignified pomp which so facilitates Oriental diplomacy, but it could not be regarded as an aggressive force.

The Indus below Bunji flows through a succession of iron-bound gorges, with scarcely a speck of cultivation on the left bank, for some 40 miles, as far as Chilas. On the right bank, at a great height above the river, are one or two little groups of villages, connected by most precarious paths. In many places the path along the bank of the river is over-hung by cliffs of loose conglomerate, the remains of ancient moraines from the vast glaciers of Nanga Parbat, which can still be seen blocking the upper valleys, and from which swift chocolate-coloured rivers, in former days unbridged, added to the difficulty of the traveller. It was in these

gorges that the Chilasis thought to entrap Major Robertson, and with their usual duplicity they opened negotiations and visited his camp in friendly guise while planning his destruction. But the plot leaked out, and acting on the policy that with Orientals the boldest is often the safest plan, Major Robertson decided to advance and seize a strong position nearer Chilas, and there to await reinforcements. To have retreated might have imperilled his little force, and any disaster would have roused the whole country. He made a rapid march and occupied the village fort Thalpen, and proceeded to entrench himself. Doubtless this was regarded as equivalent to a declaration of war, a formality which even in Western lands is apt to follow the first blow. The daring of it was superb. Here was this little armed band—it could scarcely be called a force—40 miles deep in hostile country, a country of precipices and defiles, pathless and bridgeless, with not a week's supplies except what it could capture. Between Thalpen and Chilas flowed the Indus, 200 yards wide, only to be crossed upon rafts of inflated skins.

The Chilasis shouted across that they wished to send a deputation, but when a raft was sent they fired on the crew, killing three men and wounding Captain Wallace. The game had begun. A few days later the little garrison of Thalpen was aroused by the shouts of a host of Pathans and Shins with waving banners lining the spurs of the mountains, and threatening to carry the weak entrenchments in one fierce assault; but the attack withered away before the fierce fire which swept the open ground. But already the news of the outbreak had reached Gilgit, and with the greatest eagerness little bodies of troops destitute of transport, each man carrying his own ammunition and a week's rations, started off to rescue the beleaguered escort at Thalpen. On the road they came across a party of tribesmen who had been from a safe distance besieging Major Twigg in a cave. He had left Robertson to return to Gilgit,

and on the way, at a ferry where the raft was missing, he had become separated from his orderlies in the dark, and being seen by the tribesmen, had hastily built a stone parapet against the cliff. His accurate fire kept them off during the day, but he would have doubtless been rushed and killed at night had not this opportune relief arrived. When joined by reinforcements Robertson had no thought of merely retreating in safety, but at once attacked the enemy and inflicted a severe defeat upon them, the Kashmir troops under a native officer behaving most gallantly and capturing the ridges above Thalpen at the point of the bayonet. Though in overwhelming numbers, the Indus tribesmen proved themselves but poor fighters. Their councils were divided and there was no concerted plan: each little group fought for itself, and none had the forethought to cut the long line of communications. There were places, as I saw on my journey a year or two later, where fifty determined men might have held up an army—places where a few rocks dislodged a thousand feet above the river would have started a rock avalanche. But the prestige of the conquest of Hunza counted for much, and while the Dards excel in ambuscades and night surprises, they were cowed by the superior weapons of the Gilgit troops and the dash of the leader, and they had not the pluck to drive an attack home, sword to bayonet.

While thus demoralized they thought chiefly of escape, and Robertson was able to construct rafts, cross the river, and without another engagement occupy Chilas. Meanwhile Colonel Durand, the British Agent at Gilgit, hurried down every man who could be spared and had a path cut along the left bank of the Indus. And though a few months later warriors from Tangir and the lower Indus tribe, led by their moullahs, attacked Chilas in great numbers and inflicted severe loss upon the garrison, killing Major Daniell and several Dogra officers, they suffered so heavily themselves that the attack was abandoned, and since then,

in spite of not infrequent rumours of tribal combinations, Chilas has remained at peace. Not only so, but the tribes of the Black Mountain, the triangle of wild hill country on the left bank of the Indus between Chilas and Attock, have since then been on their good behaviour. We possess the key of their back door. And a good path has been made direct from the British cantonment of Abbotabad to Chilas, up the Khagan Valley and over the Babasar Pass, so that the eastern flank of their country is open to attack. Had the rulers of India been as militant as they are frequently accused of being, the Black Mountain would have been annexed years ago. There would be no difficulty about it. A road might be cut down the bank of the Indus from Chilas to Torbela, probably meeting with little opposition from the tribes, who are isolated from one another and could be so completely surrounded that an absolute blockade might be enforced. The Indus would then be the frontier. It may be doubted whether there is any need at present for any such forward policy as regards the Indus Yagistan. The tribes have little power of combination and are badly armed, and our frontier is on the whole more accessible for defence than would be any more advanced line, which would bring us into touch with the trans-Indus tribes, who are bolder fighters and have less to fear from us than those of the Black Mountain.

CHAPTER XIII

BABASAR AND KHAGAN

FROM Chilas we returned direct to India by the Babasar Pass, where a good bridle-path was then under construction. The pass is 10,000 feet above the Indus at Chilas, and is under snow for nine months of the year.

Our first stage was up a sandy valley to Thak, a picturesque village built on the summit of a precipitous rock, the face of which was overhung with vines. We scrambled up and had a talk with some of the men, whom we found in a small courtyard of the old fort. They were not at all disposed to be friendly, especially some of the trans-frontier Pathans who seemed to be their leaders and moullahs. This was formerly another petty republic; and as the people are largely immigrants from the independent Black Mountain tribes, they have closer relations with them, especially the Jalkotis, than with the Shins of Chilas and Bunar. The headmen of Thak claim to be descended from the Koreish clan of Mecca, Arabia.* Their tradition is that when the Prophet Mohammed was advancing on Mecca to finally overthrow idolatry and establish the new faith, two brothers, Gauri Tham and Hari Tham, were foremost among his opponents, and after the capture of Mecca by the Moslems they fled to the far East, ever driven farther by the advance of the Moslem armies. Eventually Gauri Tham reached Thak and settled there. His brother had other adventures. When fleeing from the battlefield Hari

* Major C. A. Smith's Report on Chilas.

Tham met the Prophet Mohammed, who asked his assistance in crossing a stream, which he gave. The Prophet then urged him to acknowledge Islam, which Hari Tham refused to do. Ali, known as the Lion of God, came up, and, angered at his refusal, smote him with his sword, which laid open his back from shoulder to waist. At this the Prophet interposed and promised Hari Tham a long life, though his wound, doubtless on account of his unbelief, never healed. He fled to Swat, and lived over twelve hundred years. Indeed, Moullah Gulam Shah of Thak claimed to have conversed with him, and tried to convert him, though he could scarcely expect success where his Prophet had failed.

With such an exalted pedigree the Thak people look down upon the Chilasis. These latter claim descent from a Hindu chief, Rajah Chanderas, son of Rajah Risallu of Hazara. The Gor people on the opposite bank of the Indus claim a more exalted ancestry, from a fairy named Rattas, who descended from the skies into the Am-Ges *nullah*. She drank some divine water which made her pregnant.

The Thak villagers refused to supply us with coolies, but finally, after some delay, brought two donkeys to carry our extra rations for the return journey. Our band of Kashmiri porters sufficed for all our ordinary needs. It is curious that the Chilas peoples have never used ponies and are none of them horsemen; for the Shins of Astor and Gilgit are very fond of polo, and never walk if riding is possible. Even in the old raiding days they did not carry off ponies, only men or women as slaves, as well as cattle and sheep. The Chilasi is one of the laziest of men, and formerly tilled very little ground, leaving most of the farm work to the women, while he rested on the hill-side watching his precious goats grazing. But with the increase of traffic from the outside world and the growing value of local products the peasantry

are gradually learning to put more labour into their fields. They have to depend upon irrigation, and no doubt the construction and upkeep of water-channels is difficult in these loosely built hill-sides. The evergreen oak and pencil cedar dot the hills, and form occasional thickets in places over 6,000 feet, but the general appearance of the scenery is very barren up to about 9,000 feet, where it becomes more grassy, with various flowering bushes.

At Babasar we found the camp of Major Dew, C.I.E., then Lieutenant and Political Officer, and he entertained us hospitably; and we sat out after dinner by the camp fire, while his Gurkha escort and some Balti coolies came and sang and danced most whole-heartedly.

It was very interesting to see a young subaltern thus ruling in true patriarchal fashion a country only recently conquered. He camps about all the valleys, sometimes shooting on the hills, but always personally accessible to the tribesmen, allowing any villagers to come direct to him with petitions, and administering rough and ready justice not regulated by any fixed code. Occasionally a good knock-down blow is far more effective and corrective than months in jail, where fresh villainy can be learnt from those more hardened in crime. Lieutenant Dew is a particularly powerful man, and looks like a Rugby International. There is a story of his visiting Simla, and of his trial of strength of grip across a billiard-table with an athletic German *attaché*, whose arm suddenly snapped under the strain.

Next morning we sent off the porters in advance early, and waited for breakfast with our host, who then walked with us for a few miles up the pass, of which we were not disposed to make any account; for while we had to ascend nearly 5,000 feet, still the gradient appeared easy. But we had not reckoned on the sudden change of weather which set in. Scarcely halfway up the mountain it began to snow very heavily with a

cutting cold wind. Higher up we came to old snow-beds and the drifts were deep. The porters had started two hours in advance, but we caught them up, and had to encourage and assist them in every way in the final steep ascent. It was not till 2 p.m. that we crossed the top, on which it was difficult to keep a footing in the gale; but the south side was an easy descent, with less snow. The Babasar is generally an easy pass, and the hill-tops about are rounded and undulating. It was disappointing to go over seeing nothing of the scenery, especially to miss the reputed magnificent view of Nanga Parbat, and to see nothing of the rocks and the Alpine flowers. All was a wilderness of snow, in which we missed a small shelter-hut, Gittidás, where we ought to have stayed the night.

We had been advised to push on to Besal, a total distance of only 20 miles, as the nearest hut with any fuel, so we stepped out quickly, leaving our porters to follow. It was a wild, desolate valley, with, in those days, only a foot-track, quite concealed from us by the fresh snow. A horseman had started in advance of us, and we tracked the hoof-prints in places, but it began to grow dark, so we hurried on downhill, racing with the oncoming night. We passed the gloomy waters of Lalusar Lake, apparently formed by the moraine which blocks its outlet. Below this the descent became steep and rocky, with big boulders lying about. All tracks were then lost, and in a wider plain below we knew not which direction to take. In the dark we could see a large stream on our left, and there appeared to be a bridge, towards which we directed our steps, feeling our way. Suddenly a distant light, evidently a torch, shone on the hill-side on the right; it disappeared quickly, but we marked the direction and made for it, stumbling over stones and wading through a small stream. Again we saw the gleam, evidently in the door of a hut, which we

soon reached. It was indeed welcome shelter and warmth. The rest-hut is usually uninhabited, but two natives had just arrived, one a villager from Burawai, 11 miles down the valley, the other the horseman who had preceded us. But for the accidental presence of these we should have seen no light, wandered across the bridge, and taken refuge under a rock from the snow which continued to fall. It was indeed providential, and with grateful hearts we warmed ourselves and dried our garments before the blazing log fire. Abdulla, the *shikari*, who carried our tiffin-basket, produced some scraps of bread and chicken for supper, after which we lay down to try and sleep with a blanket borrowed from one of the villagers spread out over us. The men sat up by the fire, which gradually burnt out, and the cold kept me awake.

Our Kashmiri porters fared badly, for they had lingered, and night fell before they reached the boulders, which gave but little shelter, and they were unable to cook any food. But they were hardy fellows, and came on to the hut next day by ten o'clock, and after getting some food were ready to do the next stage. On the road we met one or two companies of the 37th Dogras marching to Gilgit. The men did not seem adequately equipped for a journey in October over a snow pass: none were provided with dark spectacles, not even the officers, to whom we passed on ours, and the ammunition boot is too cold for footwear in snow unless special socks are provided. Some of the sepoys had fallen sick with dysentery owing to the unusual rain and chill at night. No doubt it is desirable to impress these hill tribes with the mobility of our army, and that it is not checked by lofty mountains and early winters; this object is, however, quite defeated if the men get sick and unfit to march.

Snow lay some inches deep upon the ground, and it was chilly fording and refording the knee-deep river.

In the course of the day the sky cleared and we saw peaks of beautiful outline draped from head to foot with their fresh mantle, sparkling in the sunshine. Major C. G. Bruce has given an interesting account of his mountaineering trips in Khagan, which he had already begun to explore; he tells us of the grandeur of some of the peaks, especially of Máli Parbat, a great rock pyramid over 17,000 feet high, whose summit is still untrodden. Near by is Shikara Peak, which Bruce and Mumm climbed in 1907.

We spent a Sunday at Burawai in a very cold, windy camp. The people were very disobliging, and would not bring any sheep for sale, although hundreds were within sight. Our Kashmiri porters were clamouring for *syun* —that is, meat and soup, for boiled rice without meat or vegetables is an unappetizing diet. So I went off with the *shikari* Abdulla and stalked a flock high up the mountain. We captured a fat yearling and returned to camp, soon followed by the villagers, who were inclined to be bumptious, and needed to be talked to very plainly. They pretended that the owner of the young sheep was away, and produced an old animal which we were to take in exchange, the toughest of the herd; however, we settled things amicably, and I paid a city price for the meat. I killed a pit viper near the camp, of a kind not met with in Kashmir.

There are passes on the east to Dráwa and Kashmir, used by the natives but hardly known yet to any Europeans except two or three of the Goorkha officers who, like Bruce, are mountaineers as well as sportsmen. On the west the mountains are still a no-man's-land, and the Jalkot tribesmen occasionally still raid for plunder. Even in the summer of 1912 a small party of them crossed the Khagan Valley and carried off cattle and flocks from Dráwa.

As we descended the valley it became increasingly beau-

tiful, with forested slopes, above which rose snowy peaks to 16,000 feet. The trees were chiefly birch, maple, and pine. Precipitous and picturesque crags overhung the emerald water of the river.

For three days in Upper Khagan we scarcely saw a single habitation, but as we got down to lower levels, 6,000 or 7,000 feet, a few huts appeared with small terraces of maize. The hill-sides are so steep and the snowfall so heavy that old avalanches fill the stony gullies all through the summer. Boulders the size of a house almost block the ravines, and the river forces its way past them with deep pools above and rapids below. Much of this valley is the hereditary estate of Syeds, claiming to be descendants of the Prophet Mohammed. The chief of them lives in Khagan village, after which the whole valley is named, and on arrival there I sent my letters of introduction from the officer commanding at Abbotabad. The Political Officer of Chilas had also written, so I was received civilly, though with rather restrained courtesy. He offered to help in every way, but as a matter of fact we found it difficult to procure ordinary supplies, and in a land of cows and buffaloes it was not easy to obtain even a pint of fresh milk. These Syeds are a degenerating race, for they are too superior to do any manual work themselves, and formerly they lived by what they could extort from the veneration and superstition of their followers, or *murids*, as well as by the land revenues and timber. So grasping were they that many hundreds of the peasantry migrated to Kashmir and broke up new soil in the Kishenganga Valley. With the gradually tightening control of the British the tenants are now protected, and also the forests; and the Syeds, with their large subdivided families, are falling into poverty, except some of the headmen.

At the next stage down the valley, Mahandri, we found the road in making, well engineered round the cliffs and

8 feet wide, and meeting this, we felt that the romance of our journey was ended, but the comforts largely increasing. There was now a genial warmth, and our daily dives into the river pools were no longer discordant with screams of agony at the intense cold. We no longer climbed rough, narrow paths going over the top of every corner and bluff and crossing several spurs on each day's march. A genial young R.E. in charge of the road gave us up-to-date newspapers, and we were once more back in civilization.

CHAPTER XIV

THE GILGIT FRONTIER

TO the Englishman the word Gilgit should recall the many gallant deeds of the nineties—the capture of Hunza, the relief of Chitral, and the Pamir Commission. During the last half century Kashmir is the only Indian Native State that has increased in area. And the increase was not desired, but was forced upon the Imperial Government by the advancing power of the Russian Empire and the intrigues of its frontier officers.

The triangle of mountainous country which lies between Kashmir on the south, Russian Central Asia on the north, and Afghanistan on the west is one of the wildest in the world, and one of the least accessible. Great empires have existed on both sides of the mountains, armies have from time immemorial marched along the southern skirts to conquer India, and along the northern to subdue the fertile countries of Central Asia, and at times there have been great migrations of tribes from the vast plains of Mongolia to invade the west, but the Hindu Kush valleys have stood out above the flood of migration or conquest, and their primitive tribes offer most interesting problems to students of language and race.

For many years after I came to the country the mere name of Gilgit struck terror into the Kashmiri. For him it had the most alarming meaning : it spoke of forced labour, frost-bite on the lofty passes, and valleys of death, where the camps were haunted by cholera and starvation. Early

in April one year came word that the frontier tribes were on the war-path, and orders were issued for a levy of 5,000 porters to accompany the two regiments sent to reinforce the garrisons.

I was at Islamabad, endeavouring to fight an epidemic of cholera by sanitation, and noticed coolies collecting from all the surrounding region, each with his blanket, spare grass-shoes, his carrying crutch, and light frame of sticks and rope in which to carry the load upon his back. And I was present at the great concourse on a green meadow in front of the mosque when a sort of farewell service was held for those starting on this perilous journey. Loud was the sobbing of many and fervid the demeanour of all as, led by the moullah, they intoned their prayers and chanted some of their special Ramzan penitential psalms. Even braver men than the Kashmiris might well have been agitated at such a time, when taking farewell of their loved ones! Who would till their fields? What would happen during their long absence to their wives and children? To what perils would they themselves be exposed in the crowded bivouacs and snowy passes of that deadly Gilgit district?

My first journey across the passes to Astor was in the early eighties, and my old servant, who had been present with his master at the siege of Delhi, and with other *sahibs* had wandered all over the Western Himalayas, related many interesting and some gruesome stories of former days as we toiled slowly up the Tragbal Pass. He pointed out places where on previous occasions he had seen groups of corpses. On the Kamri Pass one of the camps was called "Murda dafan," meaning "the burial ground"; for some years previously an avalanche swept down upon a party of soldiers camped there and buried them. There is scarcely a winter without its disaster to some post runners or telegraph linesmen from avalanches or sudden snowstorms. Of recent years huts of refuge have been built at intervals, and the safest line has been chosen for the well made bridle-path, so

the dangers are diminished; but still for four or five months it is at the risk of life that communications are kept open. During the summer months the fresh breeze on the mountain-top, the jewelled sward, and the vast panorama are inspiring, but with the oncoming winter the hand of death seems laid on everything, the deep snowdrifts obliterate all landmarks, and fierce pitiless blizzards sweep over the desolation, benumbing the faculties of the foolhardy traveller. An early snowfall in 1891 nearly wrecked the projected campaign, checking the transport and causing severe loss among a detachment of Gurkhas who were crossing the Burzil Pass.

On a bright summer day the view from the Tragbul Pass is almost unsurpassable in loveliness, as one ascends through the forest of gigantic pines, with grassy glades where nature has achieved the most wondrous effects of colour, the regal gold of adonis and inula, the wild sunflower glittering in the sunshine, and the intense blue of the borages and forget-me-nots rendering even the dense purple shadows of the forest transparent; and now and again glimpses are caught of the glittering lake thousands of feet below, and of the distant fields and hamlets of the valley, quivering in warm atmosphere, and perhaps partly veiled by the fleecy clouds which drift slowly along the crests of the lower fir-clad ridges.

The Kishenganga Valley is transitional between Kashmir and Dardistan in scenery and in race, and at Gurais, where the valley opens out and there are lovely flowery meadows and fields of buckwheat around the quaint and filthy log hamlets, we get among Dards, modified by rare intermarriage with Kashmiris—a very coarse-featured type, which reminds one of faces seen in many out-of-the-way mountain villages of Kashmir.

From the Rajataringi, the Sanskrit chronicles of ancient Kashmir, it appears that, however wide the dominions of Kashmir rulers to the south and east, they seldom maintained their hold for long over these hardy hill-men, and

many a fierce fight took place on the passes leading to Kashmir.

The former Nawabs of Gurais were tributary to the Rajahs of Astor, and during the Sikh conquest Malik Dilawar, having been invited to Srinagar, was treacherously thrown into prison, from which he only managed to escape after three years; and though for a time he was able to collect the tribesmen and hold his own in the wild ravines north of the Kishenganga, the Sikhs built and held forts at Gurais and Shardi, and when they also occupied Astor his position became untenable, and he fled to Gilgit, where he was eventually murdered.

In many places the river flows through almost impassable gorges, where it has cut its way down between limestone cliffs, now covered on the south with dense pine forests, while the northern slopes are bare. On the exposed cliffs are markings of ancient lake levels, probably caused by glaciers blocking the narrow outlets of the valley. The same thing is even more conspicuous at Tilel, which is blocked off from Gurais by the huge buttresses of the picturesque pyramidal mountain at the head of the valley.

The main route to Gilgit leads across the Burzil Pass, but there is an alternative and in many ways more interesting path across the Kamri Pass. The ascent is at first somewhat tedious on a huge bare slope past the village of Gurikot, but the path then turns into a pine forest in which raspberries abound, and in the glades the ground is carpeted with luscious Alpine strawberries. There is also another little juicy berry with leaves like those of the strawberry which grows plentifully in the glades of the forest.

Higher up are rich pastures, kept fresh by frequent showers, where masses of pedicularis make the whole hill-side rosy, and the *Delphinium Kashmerianum*, with its rich hairy purple spikes, grows splendidly. The view behind extends over the hill-tops of Tilel to the summits of Harmouk and Kolahoi. Gradually one ascends to the

pass, which is a slight depression in the crest of the range. At the summit on a clear day the traveller has no eyes for anything except the magnificent proportions of the great snow-clad massif of Nanga Parbat, jutting high above the intervening ranges. It is one of the best view-points for that mountain, and I remember a very effective water-colour by Sir Michael Biddulph which attracted much attention at an exhibition of pictures many years ago. On the north side there is a steep drop, and snow lies far into the summer. Lal Singh and I glissaded the slopes, leaving our coolies far behind. The track, a mere footpath with occasional snow bridges, follows a wild valley, of fairly easy gradient, which was in those days uninhabited for the first fifteen miles.

Compared with the luxuriant grass and foliage of Kashmir, the hill-sides of Astor look barren, but what they lack in covering is more than compensated by the varied colouring of the strata and the wild precipitous forms of the cliffs. Here and there is a small alluvial fan, many of which show marks of ancient cultivation, in days when there was a larger population. In olden days the Astor Rajahs were powerful enough to hold their own and to protect their people, but as they were disarmed after the Sikh conquest, the upper villages were exposed to the plundering and slave-collecting raids of bands from Chilas, crossing the very lofty Mazenu Pass under the very shadow and over the glaciers of Nanga Parbat. Even English sportsmen in those days, if shooting markhor in the *nullahs* bordering Chilas, would have to take precautions against sudden night attacks, shifting their tents after dark and avoiding lighting fires, which might betray their whereabouts to a prowling foe. The little village of Tarshing, close to the Rupal glacier, is the outpost towards Chilas, and has high stone and timber walls and towers, similar to those in Hunza. But when life is so insecure the irrigation canals upon which all cultivation depends are neglected, and so one sees fertile valleys once full of orchards and terraced

cornfields relapsing into a sandy desert, with only the ruinous stone walls of ancient homesteads to mark the site of flourishing villages. It is easy for fireside politicians to criticize many of the frontier campaigns and the extravagance of a "Forward" policy, but they are apt to be ignorant of the evil results of a backward policy; perhaps so long as their own hearth is safe, even the sight of deserted villages might not affect them.

It would be difficult to find a wilder situation for a village than this Tarshing, with its lovely little meadows watered by runnels from the glacier close by, on one side almost overhung by a sheer cliff, crowned by pencil cedars, so high up as to look mere bushes; and yet the latter stand out as if etched in ink against a background of snowy ridges, all of them something above 20,000 feet, although dwarfed by the mighty overwhelming magnificence of Diyamir, the Monarch of the Gods.

Steeper than the Jungfrau above the Lauterbrunnen Valley rise the precipices of rock and ice, crag above crag, pinnacle above pinnacle, till the very sky is cloven.

"King amidst kingly mountains,
Monarch o'er snowy heights,
Girdled with glacial fountains,
Fenced by avalanche might;
Battlements towering skywards,
Pinnacles glistening bright;
Who shall dispute, Diyamir,
The crown that's thine by right?"

There is a massive moraine just beyond the village, and ascending it one comes to an abrupt drop to the boulder-strewn surface of the great glacier, which crosses the valley and abuts against the opposite cliffs, so that the Rupal River has to tunnel its way under the ice. Were that tunnel to get blocked the valley above would once more be turned into a lake, as happened sixty years ago, followed by a disastrous cataclysm when the obstruction gave way.

It was in September, 1906, that I paid my second visit to Nanga Parbat, accompanied on that occasion by Dr. Gaster, and we camped two days near Tarshing, under a fragrant pencil cedar-tree, on a greensward where grew roses, gentians, edelweiss and columbines; and where the hill-sides were barer the pale sage-green artemisia replaced the juicier herbage, and its strong scent filled the air, blending with the aroma of wild lavender. One morning we started early up the hill north-east of Tarshing village, and ascended about 3,500 feet to the top of the high spur, to a point which gave a splendid view towards the Astor Valley, while immediately facing us to the west rose the ice cliffs, couloirs, and glaciers of Nanga Parbat. It was all on too vast a scale for an ordinary camera, but I took some views in series. There is a cirque at the head of the Tarshing *nullah* and a glacier of stupendous size; high as we were, those ice ridges rose 10,000 feet above us.

So many thousand feet, did you say? But what is that to Infinity? Poor and petty would it all seem if only measured in cubic mass of rock, reduced to absolute scale, with lists of the pines, the plants and lichens to be found at such elevations. Picture it as part of God's glorious revelation of Himself, and how all becomes instinct with power and with super-earthly beauty, because linked to the larger life of an eternal universe.

No part of the gigantic ridges appeared at all inviting to climbers. We went to the glacier in the afternoon. The snout had advanced at least 100 yards since my visit in 1887, and the centre of the ice was much higher, almost level with the summit of the great lateral moraine. The following year (1907) the tunnel under it by which the Rupal stream escaped became blocked for a time, until the water rose and flowed over the top and cut a trough in the glacier. This caused a flood, and carried away bridges over the Astor River. In the meadows near the glacier I picked pedicularis, asters, swertia, lutea, sedum,

and other flowers. In 1887 the village was fortified on account of Chilas raids, but these have long ceased, and huts are now scattered about among the fertile fields.

While walking back we were startled by the crashing sounds of a landslide which was occurring close to our camp. Great rocks and boulders fell away from the cliff across the path by which we had come, and a cloud of dust hid everything from view. The debris was piled up over an area of two or three acres. We scrambled along the goat tracts lower down and arrived safely back, to the relief of our servants, who had been anxious. The outline of the cliff near by was quite altered. Next day we marched to Gurikot, and experienced some difficulty, as a bridge had been washed away, and the new direct road along the face of the cliffs had not yet been made. Our ponies went over the top, a climb of 2,000 feet, while we scrambled along the bottom, and finally came to a section where navvies were at work blasting a road.

In the afternoon Sir Francis Younghusband, the Resident, arrived with Captain McCarrison, I.M.S. He came down to our tents and invited us up to a meal ; and we spent a most interesting evening, as he was induced to talk about the occupation of Lhasa—of how he first went over the Jelep La in December, 1903, and spent the winter in the intense cold of Phari, to prove to the Tibetans the powers of endurance of the troops employed, whether Indian or British, and that mere procrastination to another winter would not thwart the determination of the British Government. For the same reason he insisted that negotiations should only be completed in Lhasa, at the Potala Palace. He told us of the arrogance of the Chinese officials, who are much disliked by the Tibetans. Some of the monasteries and of the ecclesiastical dignitaries have great accumulations of wealth.

When in England the previous year Sir Francis Younghusband added to his experiences by attending Revivalist

meetings in Wales and Socialist lectures in East London. At one of the latter he heard a fervid orator denouncing all our "little wars," with a special denunciation of "Colonel Younghusband, leading a plundering expedition into Tibet."

Next day I had a long talk with an Astor chief, whom I had known in Srinagar. He was quite ready to impart to me the grievances of the people. I spoke of the great progress in the country in the nineteen years since my previous visit ; of the good mule-path and rest-houses, increase of commerce and demand for labour. "Yes," he said, "that is true, but the people of the country do not profit much by any of these changes. We see that all the well-paid appointments are held by Hindus, and especially Punjabis or Dogras. These are the administrators and head-clerks, and the Astor men even of good family get nothing and are treated contemptuously." He had been to Gilgit, and knew that in the petty States of the Hindu Kush the old families had better positions.

I pointed out to him that administration required good education, and that either they must arrange for good local schools or send their lads elsewhere to be educated. A few days later I saw the school at Gilgit for sons of chiefs, in which the British Agent, Major Gurdon, took great interest. It seems to suffice for the present local needs, as the people do not realize the value of higher education. But I am sure it needs supplementing by scholarships tenable at Srinagar or Lahore, in order that the old fighting and ruling classes of these tribes may be rescued from falling into extreme poverty, and be able to fit themselves for lucrative posts in the State. But the fact must also be admitted that whatever facilities might be provided these *safed-posh*, *i.e.*, white-robed tribal aristocrats, despise honest labour, and would not take to any kind of office work. "Another grievance," continued my informant, "is that we are not allowed to shoot the game; for the licences are too expen-

sive for any except the rich English : and then the oorial and other animals come down and eat up our fields in the hills."

He wanted me to write to the Secretary of the Game Laws for permission for one gun in each village at a cheap rate, and also for freedom to snare partridges (chikor) within the limits of the village. From inquiries I made it seems that many of these chiefs' retainers are poachers, and that the right to shoot in one or two *nullahs* specially reserved for them has been considerably abused.

We were at Astor on Sunday, and were joined at our usual morning service by two young telegraph employees, one of whom was a Roman Catholic. The members of that Church are less bigoted in North India than in some places. If no other place of worship is available they will sometimes attend the Church of England services. I have frequently, at isolated places, met four or five Europeans of different religious views, including Romanists, yet all willing upon invitation to attend a service conducted by me. The telegraph department is largely recruited from young Europeans born in India and educated in hill schools. The pick of the younger men are chosen for the difficult and isolated stations on the Frontier. In resourceful pluck and energy they can bear comparison with most men trained in the old country. A year or two ago the telegraph squad of the volunteer company in Srinagar was both physically and in marksmanship the best.

The young fellows spend a very lonely three years in such places as Astor and Minimarg, snowed in for months, and seldom seeing any one to speak to. They take to trapping foxes and lynxes, to photography, fishing, or other hobbies, and occasionally, at places like Gurais and Astor, purchase good local ponies and join the natives in the popular game of polo.

Some ten miles below Astor the road leaves the river-side and gradually ascends and keeps at a height of some

thousands of feet above it, passing through several villages, as well as one delightful forest, a veritable oasis of natural beauty in this stony barren land. One path takes off to the west to Chilas, and skirts the northern spurs of Nang Parbat. The long slopes of the ridge on the north look possible for climbers, and though I only saw them clearly from a distance, it would be from that side, with my base above Dashkin, that I should like to explore the great mountain.

Before starting from Srinagar we had heard of an impending landslip below Doian which was likely to wipe out the existing road, so I carefully examined the many cracks in the hill-side. In some places there had been considerable subsidence, probably due to an earthquake occurring at a time when the soil was saturated by melting snow and heavy spring rain. But any landslip involving the whole hill-side appeared quite unlikely, as the dip of the strata was away from the valley, nearly at right angles to the slope. Formerly the path led along the crest of the hill and then plunged 4,000 feet down a terrible scree, with loose sand and stones, to Ramghat; but now we descend an easy zigzag to a well-made 8-foot road blasted along the face of the granite precipices. Where the Astor River joins the Indus, the loose piled rocks are like the rubble masonry of some fabled Titans. There are slabs and blocks, rounded or cubical of all sizes and of varied materials, chiefly gneiss, granite, quartz, and metamorphics.

Facing us at Ramghat is a grand cliff, whose colossal ribs, polished by timeless ages, seem to defy all the forces of nature; but on this side those forces seem to have been victorious over the most compact strata, tearing them apart, disintegrating them, and piling them carelessly in this vast rubble wall, which only awaits a heavy shower to send its boulders headlong into the swirling depths below, while it appears as if an earthquake of any violence would precipitate half the mountain into the chasm. Well may

Ramghat be called Shaitán Nár, the Devil's Gorge. The heat there in the summer months is terrible.

From there we had a very monotonous tramp through the sand to Bunji, once a penal settlement, but now transformed by canals, fed by streams from the snows, into a pretty wooded oasis, with scores of acres of lush hayfields and waving corn. There are loose boulder, gravel, and sand deposits at Bunji, some thousands of feet in thickness, the debris of the mighty masses which lift up their heads to the eternal snows. Some hundreds of feet above the river Indus may be traced here and there a light grey line of sandy deposit on the cliffs left by the great flood in the forties. To avoid the great heat we made an early start, but it was a grey morning and there was even a slight shower, very rare in this valley. Later the sun shone out and it became tropical. It was a relief to reach the fine suspension bridge, below which was a comparatively still reach of the great river into which we plunged, though the Indus with its chocolate water and whirlpools swirling here and there is not a choice river for bathing. At the time of the Hunza Expedition there was only a ferry-boat at this place, assisted by a wire rope across, and the delays were vexatious. It was Aylmer, V.C., who planned suspension bridges built of telegraph wire to link up the communications.

On the next march we passed the old stone sangars marking Bhup Singh's Parri, the place where a Sikh army was annihilated after six days' blockade, in 1852, only one man escaping on an inflated goat's skin to tell the story in Bunji. It happened in this way: Gaur Rahman, the ruler of Yasin, a little tribe further west, conquered Gilgit. He was a ferocious warrior of great strength, much dreaded by the people. The defeated Rajah of Gilgit invoked the help of the Sikhs. General Nathu Shah was sent with two regiments. It was the year of our Kabul disaster, and also the year when the famous Zorawar Singh was killed,

with most of his army, near Manasarowa Lake, attempting to invade Lhasa. Nathu Shah was more fortunate. He defeated Gaur Rahman near Gilgit, and then by diplomacy made a treaty by which the allied chiefs, Yasin, Hunza, and Nagar, settled new boundaries, and each gave a daughter in marriage to the Sikh general. A few years later Nathu Shah fell in battle when invading Hunza. The Dogras had then taken over Kashmir, and had a fort at Gilgit, commanded by Sant Singh, who was ere long beleaguered by the tribes. Bhup Singh, commanding at Astor with reserves, advanced and crossed the Indus, but the Indus tribes, Chilas, Thaliche, and others, rose and blocked the Dogras, annihilating the whole army.

The history of Gilgit is full of incidents not dissimilar. Is it premature to say that the Pax Britannica has now settled the whole eastern Hindu Kush region?

With peace come the problems of population. So far it has been possible to extend irrigation considerably, and largely to increase the output by more intensive methods of cultivation. And there has been a large development of lucrative employment in connection with the garrison and its transport. These were some of the matters we discussed that evening at the hospitable table of Major Gurdon, the Political Agent. Probably no British officer has ever known so many of the dialects of the Hindu Kush, or had more personal friends among the chiefs, for he had been many years in Chitral as well as Gilgit, and has an attractive way of dealing with them. He would have willingly renounced his claims for promotion in order to be left quietly at Gilgit, gradually to extend British influence; but, of course, so-called service considerations conflicted with this, and before long he was whisked a thousand miles away to political work of a wholly different kind in Native States far from the Frontier.

When will the Indian Government learn that the value of an official, if a tactful and keen man, is year by year

enhanced almost in arithmetical progression by his personal knowledge of the men and the country he is dealing with? Gurdon talked a good deal about Chitral and its merry, pleasant people, and of the scenery of its valleys, where small forests of ilex and juniper come low down near the villages. Speaking of the Maulai sect, he said that it is spread right through the Hindu Kush, Hunza, the Khushwaqtis Wakkan, and among the common people of Chitral. They annually send thousands of rupees (Rs.30,000, according to a native informant) to H.H. the Aga Khan, who is to them as a god. So intense is their reverence, that when a deputation goes down they are not deterred by the sight of the quiet gentleman in semi-European dress at a race meeting talking to English officers, and not deigning to notice his adherents. Why should he? The Aga Khan does not die—he is translated, and sends a divine successor!

The chief difficulty of the tribes, now that there is a peaceful regime and a land settlement, is the position of the *safed-posh*, *i.e.*, the high-born gentry—of families which have been warriors and hunters, but never clerks or peasants, men who have always despised any kind of manual labour, and think that it is beneath them to keep even their own personal accounts. Fortunately, they cannot mortgage their lands; but neither can they adequately farm them, now that serfdom is practically abolished.

In some valleys in Hunza there is really no possibility of extending cultivation—every terrace and level has long since been brought under the plough. In Gilgit it might be possible, but the men of Hunza would not leave their own country to settle under the administration of Dogra officials. Major Gurdon was keen on roads, but found great difficulty in obtaining even a few thousand rupees a year from the Kashmir Darbar; a false economy, as roads in the end spell cheaper provisions and more abundant transport, as well as better communications.

Nothing interested me more in Gilgit than Captain McCarrison's hospital, so well fitted up, with such evident care for the in-patients and such keen professional enthusiasm. On the subject of goître McCarrison, by his Gilgit investigations and experiments, has earned a world-wide reputation. Work such as his ranks, in my mind, as medical mission work, and must be of very real value in winning the liking and respect of the people for their European rulers.

The school for sons of chiefs is another valuable institution, from which much may be expected in time; but it needs linking on to high-schools in Kashmir and colleges in India. The Wazir of Hunza and one or two others have sent their sons to Alighur College.

There is a good deal of caste feeling among the Shin peoples, in spite of their Mohammedanism. The highest caste will take wives from a lower caste, but not give daughters in marriage to it. The Shins, Yeshkuns, Kremins, and Dums live side by side, and I believe that the caste prejudice against eating together is fast dying down.

There used to be some curious prejudices among the Shins; for example, they regarded cows as unclean, and though obliged to keep them for ploughing, they did not drink the milk or make butter from it.

I have occasionally found the same feeling among Balti patients in our hospital, who could scarcely be persuaded to drink cow's milk, but they had no objection to the milk of goats.

CHAPTER XV

HUNZA

THE hospitality of Gilgit was so enjoyable, and there was so much to see, that we should have liked to have made a longer stay. Though hot in summer, by the middle of September the climate is delightful, the shade heat seldom exceeding 80 degrees, and the nights are cool. Rain seldom falls, except for a few showers in winter and spring; but sometimes for days the higher mountains are concealed by clouds, and the snowfall is considerable above 15,000 feet. Abundant water is now supplied by well made canals from the snow-streams, and the neighbourhood of Gilgit is well supplied with small orchards, while the watercourses are lined with willows and poplars.

Rice is grown, as well as wheat, barley, and maize. Peaches, grapes, and mulberries are plentiful in their season, with fine musk and water-melons.

After crossing the suspension bridge and going a short distance down the left bank, the Hunza path turns up a desolate stony valley, with nothing green in sight till one gets near the village of Nomal, where is an old Sikh fort, often the scene of severe fighting in the olden days. What Jamrud Fort was to the Kaiber, that Nomal was to Hunza-Nagar. It was several times captured and recaptured.

A few years before the outbreak of war, I met a Hunza notable at the house of old Bahadur Khan, Rajah of Astor, who was connected by marriage with the Hunza chief.

He bragged incessantly about the valour of his tribe,

and of the many raids which had made the name of Kanjut a terror to the Kirghiz on the Pamirs, and even to the large Yarkand caravans on the Karakorum Pass, 200 miles east. In dramatic fashion, with waving arms, he pictured the swooping down of a few Hunza warriors on the Dogra fort at Nomal, the utter defeat of the Dogra troops and their flight back to Gilgit, one hillman putting a dozen of the ill-trained levies of the Maharajah to flight. I could well believe some of this story, for at that very time one of the Maharajah's regiments was filtering through. There were grey-bearded old men and weedy boys, ill-armed and undisciplined, straggling along laden with miscellaneous household effects, their muzzle-loading guns as often as not carried by the women who accompanied them.

At that time the road to Gilgit was a mere track along dangerous hill-sides; much of the path was not practicable for laden animals, still less was there room for two ponies to pass one another, and every year the rickety bridges were swept away by the rivers when the snows melted, and communications were broken sometimes for months.

As a preliminary to the campaign came years of pickaxe and dynamite work. The achievements of peace often demand more heroism than those of war. In spite of blizzards and avalanches, falling rocks and landslips, the road was carried over the Burzil Pass, 13,400 feet above the sea, and through the awful cliffs and savage rocky wildernesses of the Indus Valley.

Surely the road-makers along the Hattu Pir, with its sheer granite precipices and more dangerous conglomerate cliffs, deserve the grateful memory of every traveller. The old road ran right over the top of the ridge, a terrible stony, waterless wilderness like the Sinai mountains; then plunged 4,000 feet down to the Indus, the track everywhere marked by the skeletons of horses and other beasts of burden.

Many of the Pathan navvies lost their lives by falling over the cliffs, or were killed by the boulders which come crashing off the mountain above after every shower of rain. Other difficulties had to be faced. There was the turbulent swift Indus to be crossed, and for this Aylmer constructed a wire-rope ferry, which was later replaced by a suspension bridge of telegraph wire.

It was during the summer of 1891 that the crisis came, but the storm had been rumbling for several years among the Hindu Kush valleys. The ruling chief of Hunza had been murdered by his son, Safdar Ali, just before my visit to Astor. The old man was a scoundrel and debauchee of the worst Oriental type. The immediate cause of the murder seems to have been similar to that of Amnon, son of King David, but doubtless cupidity and ambition played their share, and the parricide proceeded to have his brothers also put out of the way: the youngest of them was thrown over the castle wall into a deep ravine. At that time there was no British Agent at Gilgit, and no excuse for interfering in such domestic affairs, so the young murderer was recognized as *de facto* ruler by the Maharajah of Kashmir. Not long after he wrote asking for a visit, hoping doubtless for a repetition of the lavish presents given by General Lockhart a few years previously. But in the interval there came tempting offers from Russian frontier officers, who were beginning a policy of adventure on the Pamirs.

Grombechevsky and his Cossacks promenaded the Roof of the World, turned off Captain Younghusband, who was then exploring the passes of the Hindu Kush, and even paid visits to, and made treaties with, the chiefs on the south side of the range. It was reported that many Berdan rifles were offered to the Hunza Rajah, and promise of a subsidy. Whatever the cause may have been, the Hunzas raided down the valley and captured the frontier fort of Chaprot. For the moment peace was purchased by Kashmir

ALIABAD.

HUNZA RAJAH AND YOUNG PRINCE.

gold, but the British Government sent Colonel Algernon Durand, a typical frontier officer, tactful but strong, to prepare for eventualities.

While the road was being made from Kashmir, Durand set to work to reorganize the Dogra troops at Gilgit and get into touch with all the surrounding chiefs. He even paid a visit to Hunza, and narrowly escaped being trapped by that crafty but cowardly chief. In this he was more fortunate than a Chinese envoy (Hunza had always been professedly tributary to China), who was plundered and fled destitute. To understand the final outbreak we must glance at the affairs of another petty State, that of Nagar, on the south of Hunza, separated from it only by tremendous cliffs and a fordless river. Between these two States has been a rivalry as keen as the old feuds of Scot and Southerner. Apparently in olden days a certain Mayroo, the first chief who embraced Islam, had twin sons; to one, Girkis, he gave the north side of the valley, to Moglot the southern. There was enmity, not open war, and a follower of Moglot assassinated Girkis, whose daughter then ascended the throne. She vowed to tear the murderer's liver with her teeth, and it is said carried out the threat to the letter. But her hatred did not extend to her cousins, the young princes, one of whom swam the river to visit her, and made such advances in the princess's favour that she bore him a son, who was called "Ayesho," the Heaven-sent, and from that son the present Thums or chiefs of Hunza are descended. The rivalry was intensified in time by petty raids, and by religion, for while the Hunzas are followers of the Aga Khan and belong to the Maulai sect, the people of Nagar are Shiahs. Then too, the Hunzas possess the gates of their enemies to the north, and control the paths to the Pamirs, while the Nagars command the road to Gilgit and have more extensive grazing grounds. The Hunzas face the south, live in the sunshine, and are at

once more frank and more warlike, while the Nagaris dwell under the shade of mountains 25,000 feet high, and live on terraces facing the north, and are said to be less keen sportsmen or fighters.

Nagar is more accessible from Gilgit, and on more than one occasion espoused the side of the Dogras against their rivals. It was comparatively easy to bring pressure to bear on Nagar, by closing the path to all traffic in salt and other necessaries, while Hunza always had a back door open to the markets of Yarkand, only ten days' distance. Had the two tribes been friendly to one another, no Kashmir troops could ever have penetrated the valley; but though the Nagaris had given passage to the Dogras, their treachery had led to more than one disaster to the invaders, and on one occasion the Dogra general, Nathu Shah, was ambuscaded and the entire force was massacred. It was from Nagar that the signal of war came in 1891. The chief himself was aged and infirm. His eldest son, Rajah Uzr Khan, suddenly murdered both his younger brothers, set the British Agent at defiance, and collected an army to attack Chalt Fort.

Durand had been preparing for such contingencies, but things were far from ready, the paths only partly constructed, the Gilgit troops badly provisioned and ill-armed. But with that prompt decision which carries confidence and often assures success, Durand made a hasty night march with a few companies and two guns, found the formidable and impregnable gorge below Chalt unoccupied by the enemy, flung the reinforcements into Chalt Fort, which had previously been strengthened, and at once cut the rope bridge which was the only communication with Nagar. Thus without firing a shot he occupied an advance post of the highest importance. The proud boast of the tribesmen was that without their Rajah's permission neither ibex nor eagle could enter their country, far less that "wingless biped" man. And of all the rocky gates of that

snow-girt, precipice-embattled fastness none are more savage and impenetrable than the Chaichar Parri.

I have never seen anything more formidable than those ruddy gneiss cliffs—huge unfissured slabs towering towards the snowpeaks above, their bases scoured by the coffee-coloured glacier-fed river, which champs and foams against its confining walls. I traversed it some years later; a gallery had been blasted through the solid rock near the foot of the cliff round two corners, but a recent flood had washed away some scaffolding at a third, and the zigzag path followed the old line, twisting up a steep incline over a jutting corner, and then down with narrow overhanging turns where a stone might be dropped by a rider straight over the sheer edge, at corners where the mountain pony seems to pivot round almost on its haunches. It is a marvel how any laden animals can pass such a place, but Durand got his mountain battery over it when the path was still more rudimentary.

At Chalt, the scene of many a siege, the valley turns east and opens out a little, and on the broad sandy bed below the river spreads out, and when the winter freezes its sources, the water becomes shallow enough for a temporary bridge. It was there that Aylmer, the Engineer, rapidly threw across a bridge for the advance, when at the end of November all overtures for peace had been rejected and the Thum of Hunza announced that he would cut off Colonel Durand's head. On the right bank for 20 miles there is scarcely a goat-track along the steep spurs overhanging the river, and the Hunza army occupied Maiyun, the only cultivable *nullah* on that side. On the Nagar bank the cultivation is almost continuous, on plateaux high above the river, with occasional precipitous purs where the talons of Rakaposhi come down to the river. The Nagar Rajah and his army, some 4,000 strong, lay at Nilt, some miles up from Chalt. He had left unoccupied a projecting conical hill commanding the site

of the bridge. It was their policy to draw our small force farther from its base, so that when defeated its retreat might be cut off and the whole army destroyed. A few scouts were driven off the hill, which was occupied as soon as the bridge was ready. From there the view is of a scene fit rather for a struggle of Titans than of men. Towering into the sky, 20,000 feet above the gorge, is the great peak of Rakaposhi, called Dumani by the people of the country. Its northern face is almost too steep for the glaciers, which in vast seracs plunge almost down to the main river. At each side ravine is an alluvial fan, mainly composed of moraine debris, scooped out vertically to a depth of several hundred feet. Water channels are skilfully constructed from the glaciers to the lovely villages which, with vines, orchards and rich terraced cornfields, cover the plateaux. But the path along the main valley has to plunge down the friable rubble cliffs to cross each side stream, and again painfully zigzag up to the next plateau. At such a corner was Nilt Fort. Now there is but a squalid village, surrounded by the debris of the old towers and massive stone wall, a sort of rabbit warren, half subterranean, crowded and filthy.

The titular Rajah, a wizened sad-faced man with long ringlets hanging below the brown Dard cap, scanty beard and drooping moustache, looked nearer fifty than thirty, which must be about his age, judging by his presence at the time of the fight as a mere lad. A ragged chief among scarecrows, he yet had a certain calm dignity like that of some poverty-stricken Spanish hidalgo among a bandit crew. He gave no ungrudging testimony to the valour that overcame the ill-armed, undisciplined courage of his own people, and willingly acted as cicerone. From the ruined walls we saw as with his eyes the appearance of the Gurkha scouts rounding the rocky spur only 200 yards to the west, greeted by yells of defiance by the defenders. Then almost immediately shells from the two

mountain guns began to burst here and there in the fort; but the metal was far too light to make any impression on those massive rubble walls, or the roofs protected by thick timbers, and these again with a layer of earth. Then the flat-topped spur above was crowned by irregulars and Punyali levies, firing right down into the fort, but harmlessly, for cover was abundant. The Kanjut marksmen, some of them armed with Sniders or Berdan rifles, at these short ranges were inflicting far more damage than they suffered themselves. But suddenly several British officers with a company of Gurkhas advanced in short rushes, taking advantage of the terraces of cultivation, and cut their way right through the abattis of trees to the outer gate. The whole party should have been destroyed, but for the narrowness of the loopholes. A few boulders heaved over the walls might have crushed them at the gate, but the Kanjuts did not recognize their danger, not knowing the meaning of gun-cotton, and did not care to expose themselves to the fire of the men on the hill or to the shells.

Captain (now General) Aylmer twice faced almost certain death in igniting the fuse of the slabs which his plucky Pathan orderly placed against the solid gate, behind which stones had been built up. Then came a terrifying explosion, the towers rocked and the walls crumbled, and before the defenders rallied from the shock, or the dust and smoke had cleared, a little band of officers with a few Gurkhas were in the narrow alley. There were but nine of them, and it was a struggle of revolver and bayonet against the fierce onset of swordsmen. They would soon have been overwhelmed had not Boisragon rushed back through the shower of bullets to bring up reinforcements who did not know that the gate had been blown in. The Wazir of Hunza was shot down in the narrow passage, and the Gurkhas, joined by the Punyalis, soon stormed the fort at the point of the bayonet, while the defenders

streamed out at the back and over the walls, scrambling or falling down into the ravine, where many of them were shot before they could get into the shelter of the sangars beyond.

It had been Durand's intention to follow them up at once, but he had been severely wounded at the moment of victory; Aylmer, Badcock, and Gorton were also wounded, and the weakened force was in face of a far more unassailable position. It might have been captured on the rush, but there were no reserves ready. The enemy, as they fled, and during the night, broke away the path on both sides of the ravine, and they had built block-houses or sangars commanding every goat-track from the river face, where they had also turned water over the slope, making a sheet of ice to the great glacier-polished precipices and ice walls of the mountain above.

'Twas a weird scene on which the stars looked down that night as the hard frost gripped the streams; below was the black abyss, on either side the watchfires of the soldiers, and within a rifle-shot the glacier, as it were the writhing form of some vast dragon guarding the peak against the foot of pigmy man.

Now and again from the cliffs some boulder would slide and bound into the gulf, awakening the echoes, and would be replied to by whirling torches and wild discharge of firearms by the tribesmen, ever on the alert against the stealthy advance of an enemy whose enterprise and dash they had learnt to respect.

So for eighteen days the opposing forces lay facing one another, till an indomitable Dogra cragsman planned a route up the cliffs on the margin of a stone shoot. Nagdu and some of his comrades first tried a lower point on a dark night, but the alarm was given, tomtoms beat to arms all along the top of the cliffs, fireballs lit the gloom, and rock avalanches swept down the precipitous gullies. A few nights later he worked out a new line of ascent and an assault was led by Manners-

Smith and Taylor. A hot covering fire searched the sangars on the crest of the cliffs, while the forlorn hope, fifty Dogras and fifty Gurkhas, scrambled from ledge to ledge up the 1,200 feet of cliff, down which the enemy as soon as the assault was perceived began to hurl huge stones, which started an avalanche of boulders from the loose conglomerate. The very steepness of the hill was the best protection against such missiles, which hurtled in mid air, or rattled harmlessly down the great stone shoots. At last the assailants reached the crest: a pause for breath, and then with a shout the sangars were captured by revolver and bayonet and the road to Nagar was outflanked.

Then came a wild scene of retreat, the tribesmen pouring out of blockhouse and cave and stampeding up the valley, headed by Rajah Uzr Khan, the fratricide of Nagar, and Wazir Dadu.

No pause was allowed: the little expeditionary force quickly reopened the lower ravine road and captured scores of Kanjuts, who flung down their weapons and sued for mercy. The soldiers, flushed with victory, did not rest at Thol or even at Manapin, but hour after hour pushed on in an unflagging pursuit that never ceased until Baltit Castle was captured, the Thum had fled across the Pamirs, and the war was over. Aylmer, Boisragon, and Manners-Smith received their well-earned V.C.'s for a gallant campaign, which had the good fortune to be described by Knight *The Times* correspondent.

It was with his book in my hand that I went over the field of battle which he so accurately depicted. A mile farther on is the old fort of Thol, and in it we spent the night amongst the people who had been arrayed against our Government a few years before, and who had lost many relatives in the fight. Our bedroom was open to the sky in the corner tower nearest to Nilt; and by the time that the more obvious dirt had been swept away and the floor strewn with substantial goat-hair mats, our cook got a meal

ready. From one little window we looked down into the mosque, where several men had taken up their abode for the night, and an elderly man, the moullah in charge, performed his devotions. It was probably he who in the small hours of the morning roused us by his loud, clear musical chant, "Come to prayers. God is great. Come to prayers."

Our arrival caused much interest, as the *sahibs* always camped in a *bagh* at a little distance. So the villagers all clustered together close to us, and one or two brought kind offerings in the shape of sweet grapes. We slept without even closing the doors, and of course without weapons, amongst these friendly folk, and in the morning one or two patients were brought to me; and I strolled about the flat housetops, camera in hand, seeking for good view-points, and as I did so, looked down through the roof openings into the simple households, where women were preparing the morning meal, and all greeted me with smiling courtesy. It was delightful to see the rich crops and the bunches of grapes hanging from the vines which festooned the trees. Behind we looked back to Nilt Fort, and up to the icy summit of Rakaposhi, nearly 18,000 feet above us.

On the way to Aliabad we passed a glacier right down in the valley, near the main road. A native who understood Hindustani was with us and I inquired about the glaciers —were they always there? He replied, "No, the ice has advanced two miles during the summer of this year; last year it advanced four or five miles, and three years ago it was three stages (*sic*) further up." Others confirmed this, one adding that forty years ago it was in the same position as now, but had subsequently retired.

Next day I inquired about this from the Wazir Humayun, who said that other glaciers also were advancing and causing floods by blocking side-streams; and he pointed out the stony flats by the river, where he said seven houses had been swept away last year by a sudden flood from the Shimshal river; there had been just sufficient warning for

the inhabitants to escape and drive their cattle and sheep up the hill. The swing-bridge to Nagar had also been carried away by the same flood.

The Hunza villages occupy a vast amphitheatre facing south-east and terraced up from the river for 500 feet and more. The terraces are on a splendid scale: every bit of ground which can be irrigated is utilized; sometimes a stone wall 10 feet high is built up to retain a strip of soil scarcely a yard wide. And the irrigation is wonderful, considering the implements and the natural difficulties. Just beyond Baltit Castle is a rocky gorge, up which one looks to a glacier and a cirque of cliffs and ice nearly 14,000 feet above—a group of crags that look quite inaccessible except to an eagle. The main canal of Hunza comes from this gorge, built up on the face of hard syenite granite cliffs, and then along a conglomerate as friable as the other was firm. The canal is negotiated across a small ravine by big wooden troughs supported on wooden cantilevers. In places the cliffs are tunnelled for the water, and wherever it flows there is the most delightful vegetation. Ferns and moss nestle in the crevices of the rocks, sprays of crimson roses stoop down to kiss the ripples; cornfields and orchards, vineyards and gardens cover the well watered terraces and slopes basking in the brilliant sunshine. Roads are a quite secondary consideration. Where the path is along the watercourse it is, indeed, charming, level, smooth, and shaded, but when it is diverted at once it is taken regardless of gradients up stony slopes, with loose boulders lying about.

Although so fertile, yet there is not enough land for the growing population, and there is but little grazing for their flocks on the great rocky ranges behind. In this respect they are by no means so well off as their cousins of Nagar, where there are grassy uplands. The villages are in clusters of little stone huts, and in many hamlets there is a tower three stories high. Most of the huts are most diminutive,

with rooms only 8 or 10 feet in diameter, and an entrance door 2 feet wide and 2½ feet high. In the lower rooms one can barely stand up, but there is a notched pole used as a ladder to an upper room which is less cave-like. Many of the upper rooms are made of wattle, sometimes plastered over with clay. The mosques are of similar construction to the houses, but with more woodwork, large front verandahs, and much beautiful though ill-finished carving. Of recent years, in these piping days of peace, the moullahs have more chance of regulating their flocks, and the laws of their religion are more strictly observed, but no Hunza man makes the *haj* to Mecca, or goes to Kerbela, the sacred city of the Shias. For these Mulais it is enough to visit the Aga Khan, their spiritual prince. They not only grow grapes, but ferment the juice and drink wine at their feasts, but less than formerly. The well-to-do have two or, occasionally, three wives, and divorce is rather frequent. A woman is thought none the worse for having been divorced. I noticed some stone seats here and there by the road, and asked a Hunza man, "Who put the seat there?"

"It is placed as a deed of merit by some man who has had a faithful wife."

This might be taken to indicate that fidelity is rare. Hunza morals are probably not so loose as is asserted by some of their neighbours, who accuse them of lending their wives to any passing guest. In the days of former Thums no man could call his wife his own.

The boys are circumcized at the age of four to ten years, after which they are promoted to trousers. The women wear baggy trousers gathered in at the ankles, and in summer a long gown of white or coloured cotton with a small cap, but in winter a brown woollen bag, rather like the other Shin peoples. The language, which they call Yeshkun, is ordinarily spoken of as Boorishki. I am not a ready linguist, and so made no attempt to study it; but

from some lists of words I have seen it appears to have no affinity whatever to Kashmiri, in that respect differing from the Shina of Gilgit or the Chiliss of the Indus Valley. There are some curious tombs in places, especially a group of royal tombs on a knoll near Baltit Castle. Each grave is in a little enclosing wall of a step pattern, and inside is a little cupboard-like place, $1\frac{1}{2}$ feet square, for placing a lamp at night.

An early appointment was made for us to call on the Thum, or Mir Nazim Khan, and Dr. Gaster and I accompanied Major Rose, an inspecting officer of the Imperial Service Troops in this part of the Frontier: he had been staying in the rest-house near the beautiful polo ground, which is shaded by great chenars, Kabuli poplars, and weeping willows. Then came a steep pull up a staircase path to the village, and through it to the castle, which dominates the valley. The path winds up and through quaint archways and staircases to the great square block built of stones and timber in which the Mir lives. Then again we went up more staircases to the flat-roofed top, on which was a light summer apartment with projecting balconies, where we were received by the Mir, a man not much over thirty, with a pleasant expression and good features. He is a brother of the Thum * Safdar Ali Khan who murdered his father and others of his family, and who brought on the war. The renowned warrior and ex-raider Humayun, who is the hereditary chief minister of the State, sat with us. He has a fierce old eagle face, with the typical long hooked nose and heavy moustache. He had fled for his life when Safdar Ali became Thum, and his brother, Wazir Dadu, succeeded him till the fortune of war reversed their positions.

The view from the balcony was entrancing, with the magnificent snowpeak of Rakaposhi or Dumani, as the Hunzas call it, far down the valley, with a few fleecy clouds

* Thum appears to be a Chinese title for a Governor (Biddulph).

drifting slowly past, and deep violet shadows shifting along slopes which, at other times, looked ruddy and golden. All round stood up peaks of the first magnitude, the Golden Parri of Conway, the unpronounceable Boiohagurdoanas, the "peak of the galloping horse," and other ice ridges, 23,000 feet high, scintillating in the brilliant sunshine. The wide Nagar Valley gives an open view in front.

In the intervals of conversation there was time to "quiz" the decorations of the room, which were amusingly and orientally incongruous. On the floor were beautiful Persian and Turcoman rugs; the chairs were upholstered with shabby crimson velvet, and on the walls was a quaint assortment of pictures — prominent among them were coloured advertisements of Mellin and Reckit, with near by an oleograph of Queen Victoria, and another of the Czar of Russia, while a large oil painting by Colonel Woodthorpe of the Mir's father, Ghazan Khan, occupied a prominent place. This portrait was so uncompromisingly faithful in depicting the red-tipped bulbous nose, the shifty beady eyes and furtive smile of the departed Thum, that we were surprised at its position of honour. Nor, if rumour is correct, was the late Chief at all a reputable person in his domestic relations.

Rose led the conversation into sporting channels, and asked if *Ovis Poli* were ever shot in Hunza. The Mir appears to understand Urdu, though not fluent in it, and left Wazir Humayun to do a good deal of the talking. He replied, "There are not many *Ovis Poli* now on the nearer Pamirs; too many English sportsmen have been shooting there of recent years. Occasionally one is seen on the Hunza mountains, but they do not find the rich grazing which they love. Our mountains are only suitable for wild goats, markhor, not for wild sheep. And beside that, the animals find themselves much less hunted further north, for the Russians and Chinese do not go in for big-game shooting like 'Huzur log.'" The Mir occasionally

goes off for *shikar* himself, and in winter shoots duck and ram chikor and small game. He does not approve of trapping duck like the Chitralis, as it is "not sport."

The Mir told us of his visit to the Delhi Darbar (1902), and of meeting the Aga Khan, whom they regard as semi-divine, there. We asked him if he had seen anything of the fighting at Maiyun.

"Yes; I only went there on the last day, just as the defenders began to run away. Mahomed Khan of Nagar was one of the bravest; he was shot by Badcock *sahib* with a revolver. Safdar Ali Khan was a coward, and ran away first. Wazir Dadu died lately."

Humayun talked quite freely.

"The Thum Safdar Ali and Wazir Dadu believed the Russians would come to help them. They were not afraid of the English, as they thought no army could penetrate their country; but they did not want to quarrel, as they hoped to get valuable presents out of them. If they had known that Durand *sahib* would have made that war, the Thum would have kept him a prisoner when he visited Hunza."

He told us at some length about the three previous attacks by the Maharajah of Kashmir's troops. One was in Gulab Singh's days, and the Nagar Rajah out of spite, at a time when most of the Hunza men were ill, having been inoculated with smallpox, invited 2,000 Dogras; they came in winter when the river was fordable, but the Kanjuts swept down on them and cut them to pieces.

"Maza se māra," added the Mir; "they slaughtered with appetite."

The other attacks have been chronicled by Drew. It is evident that they despised the Kashmir troops; but the men of the Kashmir Bodyguard had their revenge at Maiyun and Nilt.

I asked about the old raids, whether they pushed as far east as the Karakorum. Humayun replied: "We

were hungry. The herds and flocks of the Kirghiz on the Pamirs were ours for the taking. It was not our warriors who went; it was just the lads. They went in bands when they pleased, and captured caravans. Most of the plunder went to the Thum, but they kept bullocks and sheep for themselves. How else could they live? The country is too small for us to graze our own cattle."

Apparently the Hunza levy of 250 men is a substantial help to the country, as these are well paid. They did splendid service in the Chitral campaign, protecting the flanks of the regular regiments and scouting along the mountains. Wazir Humayun was at Gilgit with his men within thirty-six hours of the summons.

The people used formerly to keep hounds for sporting purposes, but now there are very few dogs in the country—they are not wanted either as watch-dogs or as scavengers. There were a good many magpies about; these and crows act in some respects as scavengers. We saw also eagles, hawks, partridges, pigeons, and various smaller birds.

I spent a good part of the next day strolling about with my sketch-block and camera. There was much we should have liked to do, but I was met by a telegraph messenger recalling me at once to Bunji to treat an English lady who was very ill; so leaving my companion, I galloped that day to Nomal, and early the following morning rode into Gilgit, only to hear that the lady was dead, and that the funeral would be at Gilgit that evening. I was asked to officiate, and we watched the distant road with anxiety lest it should become too dark for the ceremony. At last the sepoys who carried the body, wrapped in a floor-cloth and slung from a pole, appeared in sight, having marched 32 miles since daybreak with their burden.

A coffin had been prepared, and wreaths of flowers spoke of the solicitude of the two English ladies then at Gilgit. Near the grave Gurkha general, Dogra official, and Bengali

clerk grouped themselves in sympathy, and I felt the pathos of reading in such company, in the presence of the Everlasting Hills, the words of our incomparably beautiful funeral service over the daughter of a British earl.

We started next day on our return journey.

CHAPTER XVI

A FIRST EXPLORATION OF NUN KUN

An ancient peak in that most lovely land,
Snow-draped and desolate, where the white-fleeced clouds
Like lagging sheep are wandering all astray
Till the shrill whistling wind, their shepherd rude,
Drives them before him at the early dawn
To feed upon the barren mountain tops.
Far from the stately pines, whose branches woo
The fragrant breeze with murmuring melody,
Far from the yellow cornlands, far from streams
And dewy lawns, soft-cradled deep below,
Naked it stands. The cold wind's goblin prate
Of weird lost legends born in days of old
Echoes all night among its pinnacles;
Whilst higher, more remote, a storm-swept dome
Mocks the pale moon: there nothing living reigns
Save one old spirit of a forgotten god.

FRAGMENT.

FROM many of the Kashmir Himalaya, looking northwards, two mountain giants lifting their heads and shoulders well above all surrounding ranges are conspicuous—a well-known peak to the north-west, Nanga Parbat, and to the far north-east the little-known twin peaks of Nun Kun. These are the culminating points of the great middle range of the Himalaya. East of Nun Kun spread the lofty ranges of Zanskar; but few of the peaks exceed 21,000 feet, and west of this the ranges tend to be lower, with a few peaks of 18,000 feet or 19,000 feet along the watershed between Baltistan and Kashmir for the odd 120 miles to Nanga Parbat, where

the great bend to the south takes place. On the map Nun Kun is easily found, being exactly at the junction of 34° north with 76° east.

There is scarcely any mention of these great twin peaks in books of travel, for they lie far off beaten tracks. Even those sportsmen who are most familiar with the Wardwan or with Zanskar have but a hazy idea of Nun Kun, beyond a vivid remembrance of its vast outlying precipices seen from the mountains opposite. Two good climbers, Major Bruce and Major Lucas, once paid it a too brief visit, and were checked at no great height by the seracs, and Mrs. Bullock Workman skirted the mountain and photographed it from the Rangdum Valley and Pukartse La, but postponed a closer acquaintance for many years. From the north, the west, or the east, stupendous precipices are visible, which give the mountain a truly forbidding appearance. But from the Khardong La, 150 miles north-east, through a telescope, many years ago, I obtained a view of the eastern *arrête* of the peak, which led to the trip which I now propose to describe.

It was a mere holiday trip, having to be completed within the month from Srinagar, the total distance both ways being not much under 400 miles, with five or six snow passes to be crossed. So at the most only two or three days could be available for any exploration of the mountain. Early in August the Rev. C. E. Barton and I left Srinagar, and crossing the Sonasar Pass (14,200 feet) to the Wardwan and the Morse La to Suru, we there dismissed our faint-hearted Kashmiri porters and took on a scratch set of sturdy Ladakis. On the Morse La (15,500 feet) we encountered very bad weather, but after entering Ladak the weather was quite settled.

One of the grandest mountain views of the world is that from the Pukartse La, on the first march from Suru to Rangdum. The Suru River sweeps in a wide

curve round three sides of the lofty spur which has to be crossed. Most of the valley is richly cultivated, and dotted over with little hamlets. The upper part of the pass is grassy, with a brave show of blue scillæ and gentians, geraniums and edelweiss. As you cross the top the mighty peaks of Nun Kun burst into view, towering up to 23,500 feet above the sea. The northern peak, an abrupt knob, does not from this point of view show up much above its numerous satellites, mostly aiguilles ranging from 20,000 feet to 21,000 feet. But the splendid south peak stands out clearly by itself at the head of the great Ganri Glacier, of which the whole length is visible from the Suru River, below, where the ice cliffs break off into the foaming water; then come 6,000 feet of continuous seracs, and then another 6,000 feet of snowfield and spotless pyramid. Seen in profile from north or south, it is dome-shaped, with the sides scooped out, and a comparatively gentle *arrête* on the east. Near the summit on the north face is a rock cliff, as there is also on the south-east face. One *arrête* descends to the north-west, very regular, almost smooth-looking, with a few rocks visible, and in places a snow cornice overhanging the very steep northern face. Another similar *arrête* is on the south-west, and both are at an angle of 40 degrees. On the west, the buttress peak (map, D 41) falls away abruptly to the hitherto undescribed and unmarked Sentik La ("La" is Pass in Tibetan), which we crossed on our return journey. These features are well seen in the photographs which we took.

The next day we camped near the ruins of the deserted village of Gulmatonga. A broad grassy plain, through which the river rippled swiftly in several channels over a shingle bed, gave promise of a possible ford, though such could only exist late in the summer and autumn. In bathing costume, safeguarded by a rope, we success-

Nun Kun from Pakartse La.

Barmal Mountain and Nun Dome.

fully crossed, and next day got our porters and camp over. So far all went well. The Shafat Valley was our aim, and we were delighted to find abundant fuel and a good camping-ground quite close to the foot of the great moraine. The main glacier extends two or three miles further down the valley than it is marked in the Survey map. And I take leave to doubt that there was such difference even in the fifties, when the Survey was made. Still, it is not improbable that it has advanced of recent years, judging by the condition of the moraines; and an exceedingly long period must have elapsed since it was larger than at present, for the thicket of dwarf birch where our base camp was pitched grew on a considerable depth of peat soil. As I have shown elsewhere, there is evidence of the advance of the glaciers of Nanga Parbat and the Mustagh range.

As is often the case, an old lateral moraine traced a comparatively horizontal line on the hill-side on the west, and this we followed. Indeed, no other line was possible. Below was a perfect chaos of crevasses, and above were precipices. A few miles on we crossed a large side glacier singularly free from crevasses, but covered with an intricate maze of debris and rocks of large size. Our coolies came along well, and when we left the glacier and struck an ancient grass-covered moraine progress became rapid. Before sunset an excellent camping-ground was reached at a height of nearly 15,000 feet, in a sheltered nook above the moraine at the foot of the spur, round which the main glacier, here over a mile wide, swept in great waves, bending from a course due east to the north. At this corner there was an abrupt transformation. Behind were bare precipitous rocks and wild jagged peaks; in front, everything was covered with snow, but the slopes were easy and the ridges rounded off. The doubts of the morning vanished as at sunset, from Corner Camp, we saw the vast glacier and fields to the

west ascending in gradual regular curves round the base of the steeper buttresses on the right towards the lovely spotless Dome Peak, which now came once more into view, opalescent in shadow against the glow of the setting sun.

Our only regret was that scantiness of time and provisions would prevent another night's stay in these lofty regions. We had only planned to survey up the glacier to the snowfield between the two peaks, and not to attempt the peaks themselves, to which the adjective "inaccessible" had hitherto appeared so appropriate.

Our next day's climb took us almost due west up a lateral moraine for 1,000 feet, then a few minutes' step-cutting up the ice wall brought us out on the upper glacier. Its surface was in good condition, but scored by a thousand rivulets, which soon began to flow as the sun rose. Most of the crevasses were crusted over or very narrow, so our route was nearly direct. As the crust was not reliable we had to rope. Barton led, then followed two porters with cameras and food, while I brought up the rear. We soon overlooked the low snow col to the south, and saw the maze of Wardwan ridges spread out at our feet. Some of the higher peaks were partly concealed by the light fleecy clouds which had now formed, giving us grateful shade from the strong Ladak sun, but also hiding the Dome Peak persistently from view. We breakfasted on some rocks at 17,500 feet; the air did not feel cold, but one's moustache was fringed with icicles from the breath at the same time as the side towards the sun was warm. Just beyond this halting-place was another, where a shelter-tent might well have been pitched on some rock slabs; and it was here that the following year the Dutch mountaineer, Mr. Sillem, and his wife camped for over ten days, and from it he ascended to the snow plateau between the main peaks. Here one of the porters was left, as we resolved to turn

from the next snow plateau, in order to regain our base camp before dark. The slope now became steeper, and I put on crampons. We were faced by a great sloping ice wall, in most places defended by schrunds, but found an excellent line up, with a snow bridge at the schrund below the edge of the plateau. We had now reached a height of 18,000 feet; above us, on the north, was a rocky spur from the precipitous north or Knob Peak; between this and the Dome Peak west of us stretched a tumbled but not steep snowfield, which looked quite easy to ascend; and it was by this route that Dr. and Mrs. Workman reached their higher camp on the plateau, from which she climbed Pinnacle Peak, 22,800 feet.

South we overlooked the splendid peaks of the Wardwan, and behind to the east and north-east were the Zanskar ranges, over which, in the far distance, we saw the snow of the Karakorum, beyond Ladak. This was our furthest point, for it was noon, and a long descent was before us. We were not arrested by any special difficulties, for the snow was in excellent condition, the gradient less than one in three, and the weather good. None of us suffered from the altitude beyond slight and transitory headaches. What would be the prospect of a party reaching the summit of the Dome Peak? It is not easy to say. To reach a peak of 23,500 feet it would probably be necessary to camp at 20,000 feet, and I doubt whether any suitable place could well be found on the exposed snowy *arrête* of the great Dome Peak. But in good weather a hollow in the snowfield at its base would suffice for a camp. There was one practicable place, at 17,500 feet, to which coolies with wood and water might be brought in one day from our base camp in the Shafat Longma. Above this the average pace would not exceed 600 feet an hour, so two days would be needed for the ascent and return to Corner Camp.

Our descent was fairly rapid, but caution was taught

by breaking through into one or two small crevasses, and the rope was kept on. It was nearly three before we reached Corner Camp, had a hasty lunch, and then, resuming our way, descended the fatiguing moraines to our base camp, which we only reached at dusk. How home-like seemed that bleak little patch of grass and dwarf willows as we lay in front of a blazing bonfire and watched the moon rise behind the jagged peaks!

Two days later we arrived at Suru, and the friendly *kotwal* made prompt arrangements for a fresh set of porters to go to the Wardwan by a new route leading to the Zoj Nai Valley. The march to Tongul was fairly level, if uninteresting. Tongul is a group of small hamlets at the acute bend of the Suru River. There is a remarkable contrast between the right bank, which is bare red granite, and the left, with its fertile fields and grassy slopes and abundant wild-flowers. Still more remarkable is the natural tunnel in which flows the main Suru River. Loaded with grit from the glacier, the river has cut its way down in the solid granite between narrow cliffs—so narrow that boulders from the hill above have blocked the upper part, and the river has continued to cut its channel in the black unseen depths. It is thus arched in for two or three hundred yards. At Tongul we were fortunate in securing the services of an old man who had some thirty years ago been over the pass to the Wardwan as guide to Captain Moore, who was apparently the only Englishman who had previously traversed the route. As we subsequently discovered, his memory was somewhat at fault, but on the north side of the pass he led well. Two paths diverge close to the village; one, which is used for laden yaks, goes south-west up the side stream. Our route led south-east by goat-tracks up a steep hillside only fit for very lightly laden porters. After nearly four hours' climbing we dropped over a rocky neck, marked by cairns as well as a gendarme point, into a

little grassy basin close below a glacier. There were no signs of previous camps, and scarcely any fuel was obtainable, but there was good water. The peak D 41 was immediately south-east at the head of the glacier. Next morning, making an early start, we were soon on the ice. In the clear Ladak air the pass ahead had looked only an hour's climb, and we intended taking one of the side peaks *en route* while waiting for our porters. But the distances lengthened out. Far up the glacier we came on some yak footprints leading across the ridge on the right to Thannak, the camp in the Tongul *nullah*; evidently our path was more direct. As we ascended a wonderful view of the great Dome Peak of the Nun Kun opened out on the east, and it became clear that D 41 is merely the west buttress of its greater neighbour, and that the splendid icefall across the glacier on our left was chiefly derived from the main peak. The upper snowfield out of which the pyramid rises is, on this side, nearly 19,000 feet above the sea. If porters could be got up the side of the seracs a fairly good camp might be expected on the snowfield, near some rocks, and if so the western *arrête*, which is at an angle of about 40 degrees, might well be attempted. This is certainly the nearest place to any basis of operations as regards supplies and transport. Another surprise awaited us when we reached the low rock ridge (16,500 feet) which our guide called the Sentik La; for I did not then know of Major Bruce's article in the *Alpine Journal*, 1899, in which he says: "After about a fortnight we crossed the ridge to the south side, intending to cross about six high ridges that are marked on the map, and which would finally take us out to the foot of the Bhot Kol or Llama La Pass. Imagine our astonishment, on arrival at the col, to find no ridges, but a great flat glacier running in a westerly direction, and right through where the ridges ought to have been. We descended this, and on the

second day crossed the Bhot Kol Pass to the northern side again, having had some excellent ice scrambling through a great icefall." To the south and west we looked, not, as marked in the Survey map, down into the Wardwan, but on to a vast snowfield, stretching east and west. In places it was two or three miles wide, and so level as to look more like a frozen lake than a glacier. Although it was scarcely 200 feet below us the descent to the glacier was difficult for our Suru men, who wore the *pabu*, a sock of untanned leather without projecting heels or any nails. However, with the aid of a rope used as a hand-rail we got them safely down, and crossing the level snow to the south-east, in another half hour we reached a gap in the low ridge and overlooked the deep valleys of the Wardwan. This is called the Barmal La. The view is magnificent, especially of Nun Kun with a bold bluff at the head of the glacier, and then the fine sweep of snow and ice away to the west to the Bhot Kol *nullah*. Our guide, who had so far done pretty well, now lost his bearings. Pointing away to the east, he said that Moore *sahib* had gone in that direction, but whether to Zanskar or the Zoj Nai he knew not. Apparently he had never descended at all into the Wardwan valleys. We thought it best to make him lead for a while, but he soon brought us to some crevasses, and the first warning we received was that I broke into a narrow one and was saved by my elbows from disappearing entirely in the depths. We promptly roped, and, taking only the tiffin coolies, made our way down a fairly steep slope to the ice below. It was quite easy for us, but not at all for the porters. The hand-rail expedient is not scientific mountaineering, and is decidedly risky with ignorant men who have no idea of the use of the rope, but we could not climb up and down five or six times escorting batches of three. So with over 100 feet of rope paid out the long line of porters

started off, Barton cutting steps and guiding, while, with crampons and ice axe firmly embedded, I held up the rear. Several men slipped, and with their loads sprawled out on the ice, clinging all they knew to the rope. Once or twice the strain was terrible, and I wonder the good Alpine rope did not give way. We halted the line while I got down to another standing-place, and as the slope eased off the porters let go and slid down on their own account to the more level ice, from which they soon made their way across the moraine to *terra firma*. A very rough descent of 2,000 feet brought us into the head of the Barra Zoj Nai, where we pitched our camp during a sharp hailstorm. We lived in hopes of meeting goatherds to replenish our empty larder, but the valley we were in was discovered to be uninhabited and pathless, so for two days we followed it down, almost expecting to be stopped and turned back by the swift bridgeless rivers. These were rather anxious days for us. If checked, as seemed most probable, the safest plan would be at once to go on half rations and return to Suru by the route we had come. The prospect of going direct to their homes would have sustained and cheered our porters. The map marked permanent snow bridges, but we found only broken impassable ones, and the river was from 20 to 40 yards wide, deep and swift.

All day long we were fording side-streams of troublesome dimensions; and here and there saw numerous footprints of wild animals, but no recent signs of flocks or goatherds. As the result of not being grazed the hill-sides were covered with long rank vegetation. In some places were the coarse burdocks which usually mark the site of old sheepfolds; and all around grew leeks and tangled borage or spurge instead of any grass sward. Evidently the whole *nullah* must have been not merely uninhabited but unvisited and ungrazed for years. Why? Could it not be due to the absence of snow

bridges, and other difficulties of communication? We camped in a wretched place with no good water and little fuel. Across the river sheep-tracks were plentiful on the hill-sides, but there was no smoke.

We started early and hurried on ahead of our porters, to whom we had not confided our anxieties, which were chiefly on their behalf, as our own supplies were sufficient.

Just above the junction with the next river we saw a very narrow chasm, and to our great relief there was a slender bridge, with fresh axe-marks on it. It was just a couple of birch-trees laid side by side, with the water boiling 40 feet below us in a limestone chasm. Soon we met a goatherd, who had only a few days previously made the bridge, and the mystery of the valley was explained. It was a *game sanctuary*, and therefore closed to all grazing, unless poached, as by our stalwart Gujar friend.

He willingly brought us a fat sheep, on which we regaled our porters that night. It was now possible to take our choice of onward routes, and he volunteered to guide us by a new and nearer path. The next day it was drizzling, and on the higher hills snowing, so we were very thankful not to be retracing our steps over the lofty Barmal La. He led us by an unmade, rather dizzy track at the top of a sheer cliff, thence into a grassy *nullah*, the Chota Zoj Nai, from which an easy pass led us to the main path in the Wardwan Valley near Inshin, and in two days more we were over the Margan Pass and descending to the valley of Kashmir.

A word, in conclusion, about our transport and commissariat. We started with seventeen Kashmiri coolies, stalwart hillmen from Pailgam. Men from the same villages did excellently with me last year on the mountains near their own home; but when these got away from the country with which they were familiar they soon showed the white feather and left us on the first opportunity. But

we replaced them without difficulty at Suru by Ladaki porters. These are hardier than the Kashmiris, though less able to carry heavy loads. From Suru 50 lb. was our maximum load. They supplied and carried their own rations, which the Kashmiris did not do. Though not exactly valorous, they followed where led without grumbling, and they proved themselves smart on moraines. One cheerful Ladaki, with a broad, smiling face, shod with an old pair of ammunition boots, acted as interpreter, for he had picked up a little Urdu when a navvy at Simla. He and a faithful Kashmiri servant—Shabana—accompanied us up the mountain, and when roped were manageable and steady. We were able to obtain flour, sheep, fowls, and eggs at Suru at fair prices, and even four marches further up the valley we were supplied with milk by the monks of Rangdum. So the demand on tinned provisions was small. It is in matters of this kind that a knowledge of the country and the language makes such a difference. The whole cost of the tour for us two for one month was under seven pounds. It was certainly the cheapest expedition I ever made.

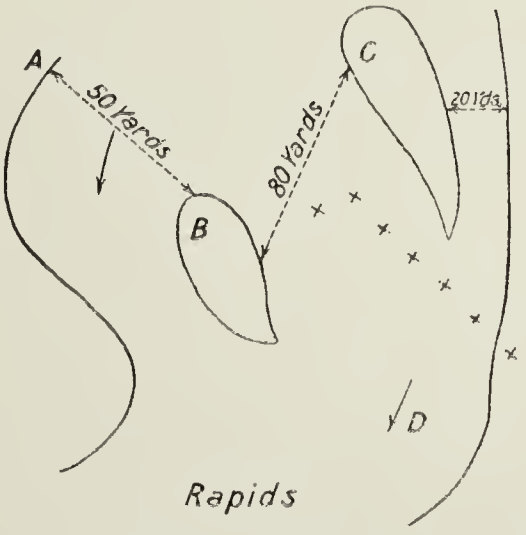
CHAPTER XVII

THE FORDS OF THE SURU

ON our first exploration of Nun Kun, Cecil Barton and I succeeded in fording the river near a camping-ground called Gulmatonga, where there is an old lake bed, in which the river spreads itself out and runs in several branches, leaving islands of pebble bank. On that occasion I led the way with a light rope round my waist, but was nowhere more than chest-deep, and the ford seemed a safe one, following the visible diagonal shallow at a very wide place without any rapids. This was late in August, by which time the river is getting low. We felt a little uncomfortable with such a river crossing the only communications of which we knew, as a few hours' rain with warm nights might completely cut us off; still, the risk had to be taken. Two years later we revisited the place.

It was at the end of July, and though much of the snow had melted yet the rainy season was on, and the glaciers must have been discharging their maximum. So we were not surprised to find that at the former ford the water was beyond our depth. I went in, and at once found myself swimming. The question arose as to whether the river might become low enough next morning to allow us to cross at some other near place, or whether we should have to follow it up for another march or two and get round the head-waters. So we chose a still broader and apparently shallower place another mile farther on, and above the junction of the Shafat River, and there made a mark showing the level of the water in the afternoon.

Next morning the river had fallen nearly 6 inches, and we were hopeful. It was decided that Barton should explore the ford with two strong men, aided by alpenstocks and a rope. The sketch map shows the nature of the ford, which could be seen at a glance, indicated by the visible shallowness and diagonal rippling between the pebble banks B and C. A little lower down it was deeper



and swifter, with broken water over big boulders and dangerous rapids for a short distance. The air blew cold off the glaciers, but the morning was bright, and the river was a trifle lower; so we were hopeful. We prepared for the water with bathing drawers, warm shirts, and beach shoes. I accompanied the leading party to the little pebbly strand B, finding it scarcely more than knee-deep, but very cold. The three pioneers, after rubbing their legs a few minutes, then started on towards the next island, C. But their direction was not good, for they aimed too directly across, and were still further diverted downwards by the current. I shouted a warning, but the river was too deep and strong, and they plunged on, first waist-deep, then swept along just touching ground, and then merely bobbing heads. Barton could swim, but not the others: and they were now in broken water above the rapids.

The Suru porters stood in a group by the bank and wailed aloud. I felt like a surgeon suddenly faced during a critical operation by a big gush of blood from some deep wounded vein. But we were quite helpless, and could only watch and pray.

Scarcely a minute can have passed when the big Suru man and Barton appeared stumbling over rocks, waist-deep, and in another minute they emerged on the steep bank, and dragged Aziza, our cook, ashore by the attached rope. With my field-glasses I could see that Barton was streaming with blood down the legs. All looked exhausted. We shouted, and they waved back. Then the Suru man shouted for flint and steel, to make a fire. One of the porters produced these and also a sling; two or three of us waded across to island B, and after a preliminary trial with a stone to test the distance, about 100 yards, the flint and steel were slung over, and in a few minutes more we saw a bright blaze from a bonfire of dry bushes.

The great question in my mind was how to get them safely back before they were chilled to the bone and starved. Loud shouts could be understood; and I prepared to meet Barton in mid-stream. He realized the situation, and when he saw me roped on the island B, he quickly rushed in fifty yards higher up, and struggling along, was swept down to me, and we were both dragged out by the rope, much cramped by the cold. Rubbing and a little stimulant restored his circulation, and the lacerations of his knee and thigh were dressed.

I tried to induce the two natives to follow his example, but neither was willing to face the river again at that place, and they evidently hoped to find an easier ford higher up. So they started off along the left bank just as they were, with merely a thin cotton shirt apiece and a turban.

There were goat-tracks, probably leading to some village higher up the valley, and these they followed, first crossing

a rocky spur at the junction of the Shafat, and then an easier meadow-land. We kept pace with them up the right bank, looking for an opportunity of throwing some food across. Early in the afternoon we came to a village and explained the predicament. Here the river was scarcely 50 yards wide; they asserted that there was no ford until much later in the year, and to prove it a hill pony was driven into the water at an apparent ford above the village; the pony was soon out of its depth, and wanted to return, but, driven by stones and voice, gallantly faced the torrent and swam over to the other side. The two wanderers came to the bank, and it was a pathetic sight through the field-glasses to see their woe-begone faces and pitiable condition. But the Tibetan villagers skilfully slung balls of half-baked dough across the river, and with flint and steel the two men lit a fire and were able to stave off famine. They then resumed their journey and disappeared in the dusk of evening.

Early next morning, taking some food and their warm clothes with me, I started off, riding a local pony, and passed Rangdum monastery on a broad plain, to the south of which was the confluence of two or three glacial streams; and with the aid of my field-glasses I saw far away in the distance, but, to my joy, on the right side of the river, the two wayfarers. We soon met, and at first they could scarcely speak for emotion; then they told of how they had tramped on far into the dark, then found refuge and made a fire in the shelter of a rock for a few hours, and at dawn hurried on to the branches of the river, so as to ford when the streams are at their lowest before sunrise.

While they settled down to enjoy a repast, I walked up the hill to inspect the quaint old monastery. What a strange place to build one! All food has to be brought across the Pense Pass from the Zanskar Valley, several days' journey. There are but two little hamlets in the Rangdum Valley, and these are only inhabited in summer, when the semi-nomadic people bring their yaks, goats, and sheep to enjoy the rich

pastures. It is a desolate-looking region; quite treeless, with only a few dwarf birch bushes; the light grey and yellow peaks rise to the snow-line on all sides; away to the west tower the icy pinnacles of Nun Kun, one of which has since been climbed by Mrs. Bullock Workman. Islam long ago invaded the valley of Suru, and established its outpost at Pakartse. The Lamaists then withdrew to Rangdum, which became their frontier tower. The differences between the villagers of Karmo Sharpo and of Pakartse are now well marked in appearance of face as well as of dress, dialect, and religion.

The monks belong to Zanskar, and of the fifteen or twenty who reside at Rangdum Gonpa most are quite young men. They are of the Red Sect, the non-reformed, which has incorporated much of the original "Bon" worship which preceded Buddhism.

Over the small gateway by which I entered the courtyard hung the dilapidated skins of three snow-leopards, stuffed with straw, which burst out in a ridiculous way from eyes and nostrils. These are a warning to evil spirits, as they swing in the wind. Some of the frescoes in an antechamber of the chief temple looked ancient and interesting. Inside was the usual picture-gallery of incarnations and Boddhisatas: some with mild attractive features, reposeful and benevolent; others demoniacal ogres, torture inflicting, and revolting in outline and in colour.

The temple smelt of incense, apricot oil, and stale food, for it is here before the altar that the monks dine.

Twice a day they sit on the long benches and regale themselves on *suttoo* and barley beer, while weird trumpetings and drummings go on.

They have no obvious occupations or interests in life, beyond their stated services and feasts and the gathering of winter fuel; but there is a small collection of sacred books, and a casual foreigner unacquainted with their language and literature would not be likely to elicit signs

of Buddhist scholarship; and it is possible that there may be one or two students among the monks, or an artist who can paint frescoes, or a wood engraver who can cut the type-blocks. It is better to give them in one's own mind the benefit of the doubt, and to take a kindly interest in what they show, trying to find in the view from the roof, or in the features of some of the pictured saints, something to admire. I do not refuse the rupee they usually ask for, but I add a copy of the well-printed Tibetan Gospels, and a little advice on the cleanliness of their temple and dwelling rooms.

My companion was in considerable pain for the next two or three days, and it was obvious that it would be weeks before he would be fit to do any climbing, so we reluctantly turned back, and a sturdy *zho*, or hybrid yak, was brought for him to ride. So pleased was Barton with the calm strength with which his steed negotiated some bad bouldery portions of the path, and especially the staircase *parri* opposite Ganri glacier, that he suggested a modified plan, namely, the establishment of a high base camp in the Sentik, where he could remain while I scouted round the south-west side of Nun Kun. This we carried out, and found an excellent line of ascent from the Suru River, where it tunnels under the rocks at Tongul, up the *nullah* to the snowfields of the Sentik. We christened the zho "Behemoth," and that animal lived up to his reputation, carrying the crippled rider in places where many an inexpert climber would have slipped. I took three of our best men, and with two days' provisions and a Mummery tent crossed the Barmal, and camped on the south side of the pass. It was snowy weather and the view was not clear, but I thought a way could be traced round the great mountain, skirting the dark cliffs of Mount Nieve Penitente, which might lead to the upper part of the Shafat glacier, and I planned a high camp near the crest of the rounded ridge which faced me to the east. Next day I was afoot early to return to the

Sentik, and found an excellent line up to the Barmal La, 17,000 feet. It was still early when we reached the col, and almost cloudless, so I determined to have a dash at D 41.

We travelled quickly up the snowfield, which was in very good condition. In two hours we were at the foot of the cirque of cliffs, and bore to the left, thereby avoiding most of the crevasses. The bergschrund required careful work, but all three of us were equipped with crampons and the two porters used the rope with intelligence. By 11 a.m. we were at a height I estimated by aneroid at 19,000 feet, but the slope faced the sun and was soft, and our pace became very slow. Had the weather held good we should have persevered; already we overlooked the cliffs on our right and were level with the snow plateau at the west foot of the Dome Peak, Nun. We were really nearer the top than I was aware of; but in any case a dense mass of clouds now filled the lower part of the Barmal glacier, and it was evident that in half an hour we should be in a snowstorm, and our base camp was four or five hours off under the best conditions.

I therefore gave the order to turn, and we raced down the steep snow slopes, jumped the schrund which had given us trouble in ascending, and got to the main névé field just as the snow began to fall heavily.

My only anxiety was to find the right track up to the Sentik Pass before the storm got worse and obliterated our traces of the day before. These were easily found, and once on the north side of the pass the wind was behind us, and very little snow fell. I should think that four times as much snow falls on the south of the Barmal as on the north of the Sentik, though but two miles apart.

None had fallen during my absence at the base camp where Barton was awaiting me, and where I arrived after my rather heavy two days' work with the appetite of a hunter. Next day we marched to Suru, and by easy stages back by the Zoji Pass.

From the Gumber *dak* hut on the Zoji, where I again left my friend, who could as yet scarcely walk, I explored the Gumber *nullah* to the south-east, and found a way across the glacier and col at its head to the cave of Amernath. It was a route which I had been trying to work out for some years, and which has been used by several travellers since, with varying degrees of success. To be safe, it needs the erection of cairns. On two occasions porters coming from the east side have got mixed up in the seracs of the Gumber, though these are at least half a mile to the west of the correct route, and an American lady made an adventurous descent of a wrong gully towards the Amernath, got soaked in a miniature waterfall, and had to spend the night, without any food, in the cave. Fortunately there was wood for a fire, and she survived the exposure and was wiser for the experience.

We marched through to Sonamarg next day, and found the two camps there in a state of excitement, as a leopard had killed two ponies close to the tents. So the ladies welcomed ablebodied reinforcements to hold the fort against that nightly marauder, of which, however, no more was seen.

CHAPTER XVIII

NUN KUN REVISITED

IT is somewhat remarkable that so many years after the splendid work of the Survey Department in Kashmir, led by such men as Godwin-Austen and W. H. Johnson, who could climb as well as map, there should still be so much to do in the Himalaya; and that after such great climbing expeditions as those of Sir Martin Conway, and Mr. Eckenstein and Mummery, not to mention Dr. and Mrs. Bullock Workman, the two lofty peaks nearest to Kashmir, and but a few days' journey from the Central Asian trade route, should remain unascended. The beautifully illustrated book on Nun Kun by Dr. and Mrs. Workman, brought out in 1909, recorded their high-level circuit of the great mountain massif, and her admirable success on Pinnacle Peak, of which the height (22,800 feet according to the Survey) is but little less than that of the two eastern peaks. They solved some of the orographical questions, already partly cleared up by me in 1902, but raised at least one new difficulty, the problem of the destination of the big glacier going to the westward, where the Survey map had only indicated a small glacial basin draining to the east and north. I had published my views and a revised map in 1902 in the *Alpine Journal*, and with these Dr. Workman did not agree. This was the origin of an expedition in the autumn of 1910, in which the then Bishop of Lahore and the Rev. M. E. Wigram were my companions.

In Switzerland there are many climbing ecclesiastics, such

as the well-known Bishop of Bristol. In India, Dr. Lefroy, formerly of Lahore, now of Calcutta, is probably the only Bishop who climbs. He learnt to do so in the Tyrol, and has crossed numberless mountain passes in the Himalaya. Marcus Wigram earned his first ice-axe as a lad on Monte Rosa, year by year extended his knowledge of ice-craft on the glaciers of the Bernese Alps, and has had some first ascents to his credit among the snow peaks near Sonamarg in Kashmir.

Our original plan was to have taken thirty coolies from Pahlgam and gone over to the Wardwan, and right up that valley to its source. In this we were thwarted, as will be seen. The porters from Pahlgam proved to be a somewhat chicken-hearted lot, averse to going far from their homes. On the second day from Pahlgam, which is a very popular resort for European visitors and a lovely centre for short mountain trips, we crossed the Sonasar Pass.

Few can tell the charm of the Himalaya who have not camped out at that height close to some grim glacier. At night one sits by a blazing log fire, built up with the debris of trees swept down by avalanches, listening to the sough of the icy breeze through the birches, to the crash of some distant rocks displaced by ice, and to the tinkle or gurgle of some neighbouring stream, or the muffled roar of a cataract in a ravine far below, while tales are told of *shikar* and adventure.

Next morning we easily crossed the frost-bound river, which looked so formidable the evening before, and ascended the steep slopes, where picturesque frost-flowers clung to the stems of the dry autumnal foliage. Some aconites and large dark-blue delphiniums were still in bloom, but the leaves of saxifrage and geraniums were crimson with the September tints.

A glacier once occupied the position of the lovely little lake called Sona Sar, the Golden Tarn, and deposited its terminal moraine in such a way as to embank the water

when the ice retreated. This is the usual method of formation of the numerous lakelets at these glacial levels. Skirting its pathless banks, we scrambled up to the glacier. One of our coolies was seized with such violent mountain sickness as to simulate cholera (which was still lingering in the villages of Pahlgam). To have returned home would have been easy; but his pay was at stake: what will not a Kashmiri do for a few annas! So the others shared his loads, and a stalwart fellow-porter assisted him up the pass, actually carrying him at times. The ice on the north side is at an easy slope, although the pass is over 14,000 feet high, and from the top a wide view is obtained of the ranges to the north-west, with Mounts Kolahoi, Rajdani and Sachkach, which latter two I had climbed with the Bishop several years ago. More to the north the great slate peak of Panjatarni (18,000 feet), with its strata heaved up on end, looks most impregnable.

The east side of our pass was exceedingly steep for 500 feet; and at one corner, close below a tuft of the lovely blue poppy of the Himalaya, I took a snapshot of the Bishop descending the rocks. It was a drop of nearly 7,000 feet to Suknes, the last village of the Wardwan; we had to cross and recross a deep swift torrent by snow bridges, the remains of avalanches which must be 50 feet deep in early summer. Our porters ran merrily down the hill, finishing their 18 miles' march in ten hours, and the sick man recovered with a night's rest and a little medicine, and was rejoiced to receive a rupee as his wage. At Suknes we managed to secure a change of porters, but had to wait a whole day while new men were collected from remote villages down the valley. These brought their own rations for four days, only sufficient to carry us to Suru; a change of plans necessitated by the failure of the men we had sent by the easier Margan Pass to bring the four hundredweight of rice we needed to carry out the plan of exploring before visiting Suru.

For the next two days we followed up the Wardwan

River, gradually getting into wilder scenery, of which the effect was enhanced by fresh falls of snow on the higher mountains. One fine mass, over 19,000 feet high, we called the Couching Lion. Not far beyond it is the Morse Kol or Yaurangshan Pass to Suru, by which our porters desired to go, not having any taste for exploring or any confidence in being led by a foreigner among mountains which they themselves had known from boyhood, and which their superstitions people with malignant spirits. We saw some yaks coming down the pass, which, though over 15,000 feet and glacial, is not difficult for those surefooted beasts. At night we camped below a big glacier, on the very spot where many years ago Lieutenant Genge, I.M.S., was buried with all his camp and porters under an avalanche. In early summer the upper Wardwan valleys with their steep slopes and heavy snowfall are extremely dangerous from this cause. A year or two ago, in late autumn, an officer had a narrow escape; he was blockaded by avalanches and lost nearly all his outfit in the snow. Wigram and I explored the best route on to the glacier before dusk, and next day led the porters up. As usual, the loose rocks and debris of the snout and lower moraine were the most troublesome part, and a mile up we came on broad alleys of white ice, with a good surface. But next came an intricate series of crevasses, with no snow bridges by which to cross. This explains why the route over the Bhot Kol is never used in the late summer, though more direct than, and not so high as, the Yaurangshan Pass. We zigzagged along, finding some rather razor-edged paths between deep yawning gulfs; but the porters proved as stolid and as surefooted as yaks or ibex, and followed us without hesitation. After four hours we stood close under the Bhot Kol Pass. The splendid pyramid of No. 10, over 19,000 feet, blocks the view straight up the glacier. To our left is the low ridge of the Bhot Kol, from which no glacier comes.

It must have been from somewhere near this spot that

Dr. Hunter Workman took the photo to the south-east of the ice wall of the Bhot Kol, with the range above it, which he credited me with the desire to erase. The great icefall of the glacier does indeed look formidable, and we roped for it. To any novice who looked at the maze of almost parallel fissures from 5 to 15 feet wide and of unfathomable depth it might well appear hopeless, the upper lip often a sheer cliff of green ice, and usually several feet higher than the lower. Yet a tortuous zigzag path can usually be found, here leaping a narrow fissure, there cutting a footing on a knife-edge of ice, and then one or two steps in the wall facing, more often finding a circuitous path at a gentle ascending gradient. Then would come a level terrace with narrow fissures, then again, at the left of the glacier and below the southern *arrête* of No. 10, a series of riven walls of black ice, coated with half-frozen mud and loose moraine fallen from above. Up these a gymnastic progress, often somewhat quadrupedal, was effected, and at last a short walk across the moraine and out on to the almost level surface of the glacier above the icefall; then, as we turned the southernmost spur of No. 10, giant peaks sprang into view to the east. These are Nun Kun, with its western buttresses, Monte Nieve Penitente, 19,500 feet, and Barmal Peak (No. 41), 20,500 feet, themselves giants, but dwarfed by the colossal pyramid of Mount Nun, which rises to 23,400 feet just behind them. Here we measured a base line of 1,000 paces, did some photography and field-sketching, which should leave no room for doubt that this great Barmal glacier, so strangely overlooked by the Survey, and curiously misinterpreted by a famous Himalayan explorer as going into Zoj Nai (a valley to the south), really flows from the outlying buttresses of the Nun massif, and goes some 15 miles to the head of the Wardwan, constituting perhaps the longest glacier in these Central Himalaya.

Our next objective was No. 41, Barmal Peak, 20,500 feet,

but before attempting it we had to visit Suru in order to get Balti porters and rations. In three days we accomplished this, and were camped at 17,500 feet in the highest basin of the glacier. The last explorers had camped for a fortnight just south of the low ridge which shuts off the glacier from the Zoj Nai, and on my previous visit I had camped an hour or two lower down on the same side.

Marcus Wigram, Ahmdhu, the Kashmiri *shikari*, and I were alone for this climb and slept in a Whymper tent on the snow in a hollow of the great cirque. We started while the shadow of the great peak was still projected like an indigo cone on the sky in front of us as we looked down the glacier. Walking fast on the crisp snow, and roped on account of the many hidden crevasses, partly blocked by recent snowfalls, we made good progress. By 7 a.m we were on steep frozen slopes, which would have delayed us but for our crampons. By 8.30 a.m the sun was on the snow, and we began to break through the crust at each step, but we were nearly level with Nieve Penitente. Another half-hour and, panting deeply from the steep slopes and soft surface, we were at the spot where on account of threatening clouds I had turned on my previous attempt. Near the summit was a level bit of ridge where we rested for a few minutes, and then came the few final minutes up a steep ice *arrête* and the summit with its little cairn built by Dr. and Mrs. Bullock Workman on their successful first ascent.

There are few more exhilarating moments in a lifetime than those the climber experiences when the summit of his ambition is attained. To the last moment the struggle is maintained, with bounding pulse, panting breath, and, it may be, flagging muscles. Then comes suddenly absolute rest, with the flush of achievement; and to this was added in our case such a view as I have never seen before—such a view as only a few summits of the Himalaya and none in the Alps could give. It was not merely a cloudless day,

but so dazzlingly clear that with field-glasses one could see the minutest details of the mountains a hundred miles off. One—Daspur Peak, 200 miles away—was clearly recognizable to the north-west far beyond Gilgit. To the naked eye Nanga Parbat looked but 30 or 40 miles off, though in reality more than twice that distance. Along the northern horizon stretched the Hindu Kush and Karakorum, some 300 miles of snow summits, comprising at least thirty peaks over 24,000 feet and several over 27,000 feet; one of them may have been the Teram Kangri Peak Longstaff, Slingsby, and I discovered in 1909, but it seems quite likely that there is at any rate one other peak in the same range not yet identified or observed. Wigram and I lingered some time making observations, but there was a descent of 10,000 feet before us, with many miles of soft snow in the blazing sun, so reluctantly we again roped and glissaded or plunged down by the same general line as the ascent, and were warmly welcomed at our shelter-tent below by the Balti porters, who had faithfully come up from their rock shelters some miles down the glacier to carry down our packs. By evening we reached the little village of Tongul.

CHAPTER XIX

A TRIP IN LITTLE TIBET

Lo! where the pass expands
Its stony jaws, the abrupt mountain breaks
And seems, with its accumulated crags,
To overhang the world.

SHELLEY.

FOR several hundred miles there is no gap in the great snowy wall of the middle range of the Himalaya to the Zoji Pass, or "Zoji La." It is only 11,500 feet in height. The peaks of the range average 18,000 feet, culminating to the north-west in Nanga Parbat, which belongs to a different system, and to the south-east in Nun Kun, beyond which are the lofty snows of Zanskar. Here and there are precarious passes, the Bara Lacha, on the road from Simla to Ladak, being the next best. This, then, is the main route from Northern India to Central Asia. But the road which connects the large towns of Chinese Turkestan with the fertile plains of the south is only open to travellers for a few months of each year. It crosses no less than seven snowy passes, and forces its way onward in spite of the combined forces of nature; obstructed by landslips and rocks, diverted by unfordable rivers, swept by avalanches, exposed to a tropical sun in shadeless ravines and to Arctic gales on shelterless plateaux, yet the indomitable perseverance of trade has achieved a victory, and year by year caravans traverse this desolate region.

In July, 1897, we were a party of three: M——, the artist, B——, the engineer, and N——, the doctor.

A showery day cleared with the rosy streaks of flying cirrhus at sunset as we reached the foot of the Zoji La. To cross the pass we must make an early start, so we struck our tent and took up our quarters for the night in front of the shelter-hut for travellers, having as our neighbours a few Yarkandis returning from Mecca, some Kashmir traders, and the sturdy Dras mail-runners, who live there at all seasons. There was a bright moon, which one watched as it slowly crossed a narrow segment of the heavens, occasionally looking at one's watch lest the last doze should have been too long. How many the pleasant thoughts as in the silence of the night, surrounded by the awful grandeur of the snowy mountains, one recalls former nights spent under the canopy of the sky, and looks forward to the accomplishment of some purpose and to the prospect of new scenes; and the distant torrents falling down the rocks, and the night breeze murmuring like an Æolian harp through the pines, make an undertone of plaintive melody. Though only moonlight at 2.30 a.m., when we roused ourselves, the dawn was creeping into the shady hollows before our caravan got started, for the ponies had wandered off up the hillside. We were soon on snow, and looked up the magnificent gorge, with its vertical slate cliffs (see illustration). Walking ahead of our men we managed to miss the path, following too far up the snow; however, a traverse along the steep hill-side brought us back to the path halfway up its many zigzags. Our tiffin coolie, thinking he knew better, went still higher, and in order to rejoin us had to cross the ridge at a considerably higher point. It was a long pull and a hard one for the ponies, though none were heavily laden. Many a trader's pony never gets across at all, for in wet weather the path is slippery, and a fall over the side is inevitably fatal.

At the summit of the steep ascent we look back at the

Sind Valley, now nearly 3,000 feet below us. How emerald it is, with its rich grassy meadows and forested slopes! Then we turn north and realize that the waste of snow before us is the frontier of barren Tibet, where sandy plains replace verdant meadows, and where the wild ridges jutting up against the sky are kept bare of vegetation, their strata crumbling under the destructive action of frost, snow and sun, leaving bare ribs of gaunt and often fantastic outline. There is ridge beyond ridge, wave after wave, each higher than the other, and all culminating in the mighty masses of the Karakorum. Most of these ranges are parallel to one another, and as the mountains rise, so do the valley troughs between. Kashmir is 5,000 feet above the sea; then come side valleys of 7,000 or 8,000 feet, then further north-east the valleys are 10,000 or 11,000 feet, beyond which come the great plateaux, really open valleys, of Tibet, at a height of 16,000 feet or more. This is seen not with the eyes, for the distances are too great and the intervening ranges too high, but with the scientific imagination, which then pictures the early time when an arm of the great Tibetan ocean of Eocene times filled the upper Indus Valley.

It is curious that in the case of a pass so accessible from Kashmir and on the highroad to Ladak there should be such conflicting statements by travellers as to the exact watershed. For example, Roero di Cortanze, quoted by De Filippi, says that in the middle of the pass is a little lake fed by springs, which swell so high during the melting of the snows as to overflow on both slopes. Such high authorities as Burrard and Hayden write that the pass itself is grassy and so level that the exact water-parting line is difficult to discover. I have crossed the pass about a dozen times and studied it carefully under varying conditions.

It is under snow in part until the end of June, and snow-beds remain till well on in August, sometimes concealing the actual water-parting till then. In autumn it is well

seen. From the highest lakelet on the Kashmir side a gentle slope leads up for a hundred yards or more, according to the level of the water, to a rounded stony elevation formed by the talus of two side streams which come down the steep hill-sides east and west. These fan-shaped taluses irregularly divide the small side streams; one year most of the stream flowed on the north side of its fan, another time an equal or larger amount of its water went to the south. So, too, with the stream from the west, though its channel is more definite and usually to the north. The actual water-parting is the toe of these two talus slopes, and is easily defined within five paces one way or another.

The Zoji was probably, as the above writers say, carved out of the range by a prehistoric river. I think one may add that extensive glacial action subsequently much widened the gap.

Which way did the river and the glacier flow? R. D. Oldham considers that originally the Ladak drainage, that is, the Gumbar River, extended as far south as Kolahoi, and that it was captured by the excessive erosion of the Sind River. This is an interesting and bold hypothesis, and it must also be acknowledged as a well-worked out one; but I confess to me it is quite unconvincing, especially when studied on the spot, with Mr. Oldham's paper in my hands.

The evidence of the rock markings seems to show that a glacier flowed to the north, for the rocks are more abraded on the south, *i.e.*, the scour side, and more plucked on the north, *i.e.*, the lee side. But we need not look far for that glacier, though probably none of the above travellers have been aware of its existence. For one thing, the only Survey map indicates it as merely occupying the actual north slope of the Amarnath Peak; whereas it is, or was in 1904, when I visited it and climbed a col at its head, a considerably larger body of ice, filling a basin half a mile long and equally broad at the foot of the splendid cirque of Amarnath. It then extended to where in the old map a network of

streams is marked and the word "Kenipattar" written. I think there is evidence that this glacier formerly extended through the Zoji. The stream now flowing from it has cut a narrow gorge, and there is a waterfall at its junction with the Zoji. The Baltal stream, cutting back from the south, has now captured this Kenipattar River.

Another probability is that this was a notable instance of what is called a transection glacier, such as may now only be found in Arctic regions, but of which the Grimsel Pass in Switzerland is an example. The glaciation of the Zoji extends at least 2,000 feet up the mountains, and when at its greatest extent formed a most extensive ice-cap of continental type. The pass which I discovered in 1904 at the head of the Gumbar *nullah*, from the Zoji to Amarnath, is over a large glacier summit snowfield which formerly drained south as well as north. The two large glaciers, those from Gumbar and from the east of Sirbal, formerly joined in the large triangular plain one mile north of the Zoji water-parting, which is now not over 100 feet lower than the highest part of the pass. If the ice was even 1,000 feet thick, it would have naturally moved both ways, transecting the range. At a later period, when the ice shrank within the mouths of the lateral valleys, came the partial filling of the crest of the pass with detritus, and with the extensive alluvial deposits which probably conceal the ancient moraines (processes still going on). The crest of the pass being reached, the other side seems almost level. It is covered with deep snow till past midsummer, and when the great beds of snow thaw, some of the traveller's difficulties are increased. It is impossible to ride over the rotten snow, into which ponies sink deeply. In places the snow-beds are undermined by streams, and crack or fall in, leaving awkward schrunds for the baggage animals to negotiate. The icy streams have to be forded, for there are no bridges in early summer. We stripped and waded through. I was in advance with Abdulla, and was be-

ginning to dry myself, when, looking back, I saw some one else's nether garments floating swiftly by, the owner thereof quite unconscious that he had dropped any of his paraphernalia. The *shikari* gallantly dashed in and rescued them, but my friend had to extemporize a kilt for some hours. A cutting wind was blowing, so for our frugal meal of cold mutton, bread, and butter we crawled into the shelter of a *dak* runner's hut, or rather kennel, for it was only 4 feet high and barely 6 feet square. Hunger is the best sauce, and even the filth around did not spoil our meal. One of us remarked, "How jolly cosy we are here, but if we were to take this hut and put it down in London, and were seen sitting on stones eating bread a week old and cold mutton, the poorest labourer in town would waste his pity on us." About five miles beyond the top of the pass there is a solid rest-house, near which (up a side valley) is a glacier.

The snout of this has not moved 100 yards in the twenty odd years I have observed it. I have photographed it from exactly the same spot at intervals, and no change is observable. But it was formerly much larger, and one can easily trace five or six lateral moraines, the uppermost of which is actually the site of the rest-house. A few miles beyond this the road drops 200 feet to the broad plain of Minimarg, where a caravan was picturesquely pitched, waiting for the Vachkargan River to get lower, as a bridge had been carried away the day before. The stream was still running fiercely and nearly waist-deep, but linking hands, we struggled through, though almost benumbed by its extreme coldness.

A small side glacier can be seen up that *nullah* which is certainly advancing; last summer I scrambled up to it, and photographed some of the seracs which were falling sideways over the lateral moraine, in which the surface water was cutting a gap.

We reached the village of Matayan early in the afternoon,

but our ponies did not come in till nearly dusk. The village is on a wind-swept plain, where there is not a single tree of any kind. In winter the low huts, built of rubble, stone, and mud, are buried under the deep snow. It is difficult to see why the inhabitants are content to remain in such a desolate semi-Arctic region, when there is abundant land in the fertile valleys of Kashmir within two days' journey. The road below Matayan sweeps round the base of a magnificent mass of limestone, with splendid cliffs below, giant steps above culminating in picturesque castellated forms. On the north side, overlooking the lower part of the pass and the Dras valley, are great cirques, crowned by glaciers, which at one time filled the amphitheatres, and at a far remoter time poured into the Dras Valley, forming the rounded hillocks and flat meadowlands which there stretch out before us.

There is a well-marked fault near Pandras, where the limestones are replaced to the east by trap, porphyry, serpentine, and granite.

These rocks are highly polished in places, and gleam in beautiful colours where wet with the spray of the river. Ice has planed off the ridges on the left bank and rounded off several projecting hills of granite and gneiss in the Dras plain, where the main ranges are several miles apart. The more evident traces of ice, such as moraines and "roches perchées," cease some 8 miles east of Dras, at an elevation of about 9,500 feet.

When this was the limit on the north side of the Himalaya, we may be sure that on the south side, with its much larger snowfall, the ice would be considerably lower: and we may attribute the glaciation at Gund, in the Sind Valley (7,500 feet), to the same period.

A study of glacial action in the Suru Valley and the Kishenganga points the same way. We have to picture a former ice-cap on the Himalaya scarcely less than 50 miles broad from south to north at any point.

There is a rest-house at Dras, which most travellers carefully avoid except in winter, for it is of weird and comfortless design, consisting of very small rooms, opening into one another, and a very spacious central apartment which is designed for a kitchen. So Ram Bux, the cook, has a good time of it, while his master shivers in a small smoky room, and listens to the clatter of pots and pans and the babel of many strange tongues. We camped in the garden by the little post-office, where there is a grassy sward and a grove of poplar trees, with stone walls to screen one's tents from the cutting easterly winds.

Patients came in large numbers next day, for they have heard of the Srinagar Mission. One sturdy old Botia (Tibetan) came hobbling along on a wooden leg with which we had replaced nature's limb some years before. He wanted his son brought up as a Christian, but after a few years at school, the home-sickness was so strong that the lad went off to his own barren, bleak birthplace.

The Dras men must be a hardy race, for the winter is very severe and snowy. They are a very mixed race. Some in the highest part of the valley are Dards from Tilel, others are of partly Kashmir blood, while the majority are Mongolians of the mixed type met with among the Mohammedans of Purik, the district in the Suru basin. They are regarded as Baltis, and from the head measurements I have made at Dras and elsewhere I regarded them as having more affinity to the Ladaki Mongolians than to any of the Kashmiri or Shin races to the west. Indeed, they speak of themselves as Botias, meaning Tibetans. The women do most of the field work, and at an early age become a mahogany brown complexion, wrinkled and haggard. The men tend their large flocks or go in search of lucrative navvy work. Nearly every family has a pony and a diminutive cow. The pony supports the rest, earning fifteen rupees a month in summer by going to Leh or Srinagar with travellers. Late in summer the women may

be seen cutting the rank herbage, especially the *prang*, that grows wherever the hill-sides are moistened by a spring or an irrigation cut, and then the men make up huge bundles like miniature haystacks, which they carry down and pile on some high rock where it will not be buried by snow.

They sow crops of barley, buckwheat, pea, and lucerne in May, and reap in August, and by November creep into their dens for the winter, emerging for a few hours daily when the sun shines. It is a strange life, with few needs. All they ask from the outside world is salt, sugar, tea, tobacco, and a few simple bead or shell ornaments such as their womenfolk consider fashionable—a fashion that has not changed in five hundred years.

Bleak and bare as this upland valley is, more than 10,000 feet above the sea, yet it has a charm of its own. I love its wide spaces and the suggestive view away to the east over blue mountain ranges; the great castellated dolomite crags to the south with their pinkish tint and mauve shadows are uplifting, while on the northern slopes there are bands of bright yellow, brick red, and greenish rocks, above which snowy peaks, mostly virgin, lift their crests. Captain Cory captured one summit, and last year (1912) I explored a lovely valley to two snowy cols on either side of the sheer tower of D 4, a peak over 18,000 feet, which will only lower its flag to a party of crack cragsmen climbing under the most favourable conditions. All around are most attractive peaks.

At Dras we met a party of English sportsmen returning from Leh, and heard of the flood wave which had a few days previously swept down the Suru Valley. One of the gentlemen had a narrow escape, as his tent was pitched on low ground near the river, which rose suddenly, and he had to escape hastily in night attire, losing many of his things. The main bridge was swept away, and other damage done. The report of this modified our plans, as the nearest available bridge was halfway to Sankhu, to which a

shorter route was available. Before leaving, I again compared my aneroid and thermometers with those at the meteorological observatory. It was interesting to note that, though we were 5,000 feet higher than Srinagar, the temperature was much the same; but while the wet bulb at Srinagar is seldom more than 5 degrees below the dry, at Dras it is usually 15 degrees less, due to the very dry, warm wind that blows.

We saw the country well next day as we left the main road to cross the Umbe La, in order to cut off a corner. The bridge over the Suru River at Kargil had been carried away by the flood, and traffic for a time was diverted further up the river, so that the main road for the next 50 miles was shaped like a **Z**. By crossing two passes we cut off the corner and saved two days. There is a mere track which ascends rather steeply opposite the camping ground at Dras, crossing the river by a frail bridge thrown from cliff to cliff. The bridge is not easily approached when the water is high; our ponies were helped through the water separately, one man dragging the head and another steadying the tail. We ourselves scrambled down niches in the cliff. Then came a steady ascent of four hours to the top of Lama Gus La, which is about 14,000 feet high, and commands a fine view of the Dras Valley and the mountains to the west and north. By midday we were in a grassy valley where yaks lay enjoying the juicy pasture and marmots shrieked shrill defiance at the intruders. The glaciers of the beautiful Machai Peak (21,000 feet) seemed quite close.

Captain Cory climbed one of the outlying peaks in 1911, a height of about 17,000 feet, but found the summit inaccessible from the north. I think from the views of its south side I have studied telescopically, it should be quite possible to ascend the highest summit. The approach should be from the glacier at the head of the Shingsha *nullah*.

The Machai glacier at one time filled the whole of this

Lowar Valley. It is a typical hanging valley, rounded and widened by the former ice, with a very precipitous outlet to the Dras Valley on the north, from which side it seems inaccessible. Here we halted and allowed the ponies to graze for a couple of hours, then ascended 2,000 feet to the Umbe La, which overlooks the Suru Valley, into which we descended just at sunset. To judge by that interesting but unreliable book, "The Abode of Snow," the Umbe La may be at times somewhat formidable; the author piles on the horrors as he describes the snow climb and the dangerous precipices. He appears to have been belated on the mountains, and to have suffered afterwards from the exposure. We crossed in July, when the days are long, and were thirteen hours from Dras to Umbe village, including halts. But the path was fairly good and the day cloudless. From the top of the pass a splendid view is seen of the great twin peaks, Nun Kun (23,400 feet), which dominate South Ladak.

During the last few hours I had been in much discomfort owing to large blisters forming on the upper part of my feet and ankles, where they had been exposed to the intense sun during the previous day; for after fording the river I had walked in sandals without socks. I have several times seen acute inflammation set up in Europeans in some such way. Young sportsmen sometimes roll up their sleeves and get their arms blistered. This is especially likely at high elevations, and where there is reflected sunlight off snow with a large proportion of ultra-violet rays. Most Europeans return from Tibet with complexions mottled pink and mahogany where the face has blistered and peeled. In these regions I advise ladies to use ointment every morning on the cheeks and the nose, and to reserve their ablutions for the evening. In my own case the lesson was well impressed, for I had to ride on native saddles for the next ten days.

The Umbe Valley combines many of the features of

Kashmir with those of Ladak, for the people are Tibetan, but the comparative wealth of herbage and the profusion of bright pink roses growing among the rocks are a reminder of Kashmir. The path was in places difficult for laden ponies, as the swift, almost inky stream cuts away the foot of the steep shale slopes and the path breaks away. But in a few hours we reached the fertile plain of Sankho, with its rich crops of wheat and peas and its little canals shaded by old, gnarled willows. Here, and in the neighbouring Kurtse Valley, there had been much scarcity, as early snow in the previous autumn had prevented the crops ripening. Some people had even died from famine, but immediately the Zoji Pass became open, having both money for purchasing and ponies for carrying, the Suru peasants brought rice and maize from Kashmir. A little forethought on the part of the State officials at Suru would have prevented any famine, but they themselves possessed abundant grain, and perhaps hoped to profit by the rise in prices.

Below Sankho there is a good riding-path. The gorge is very wild, gigantic trap and gneiss cliffs rising on the left bank. Huge blocks have fallen from them and dispute the passage. They have been polished and arranged by ice, leaving here and there level spaces, once glacial pools, now fields. I think it is probable that the plateaux of Sankho were deposited in the remote past, when the gorge below was choked by glaciers.

We camped for the night at Tsalis Kot, a big village, near which is a very extensive plain with an area of 8 or 10 square miles, only parts of which are cultivated, as water is not abundant and the soil is porous. The wheat near the village looked splendidly healthy and was nearly ripe. Just below the village a suspension bridge has been thrown across the river, supported by twisted telegraph wires. It is a frail and shaky structure, across which animals are not allowed to go laden. So the loads are

removed and carried over by men. At the time we went, all the traffic to and from Ladak had to cross this Kinor bridge, a diversion of over 20 miles from the main road. It appears that the river at Kargil has partly changed its bed, cutting a broad channel to one side of the bridge there, and carrying away part of the fields and orchards on the right bank. It may be possible to train the river back into its old course, but the "wild white horses" are difficult to rein and guide; so it would be better to build another bridge higher up. This was done a few years later.

As we crossed a pass near Chuskor we emerged on the edge of the Kargil plateau, a great, dreary, stony plain, sparsely covered in early summer with wormwood and other short, aromatic plants. This great plain is a succession of alluvial terraces, which rise to a height of nearly 1,000 feet above the rivers on either side. It is a foretaste of the great plateaux of Eastern Ladak, which stretch for hundreds of miles, inhabited only by a few nomads and by herds of wild yaks and antelopes. The district of which Kargil is the chief place is called Purik, and is inhabited by Mohammedans of the Shiah sect.

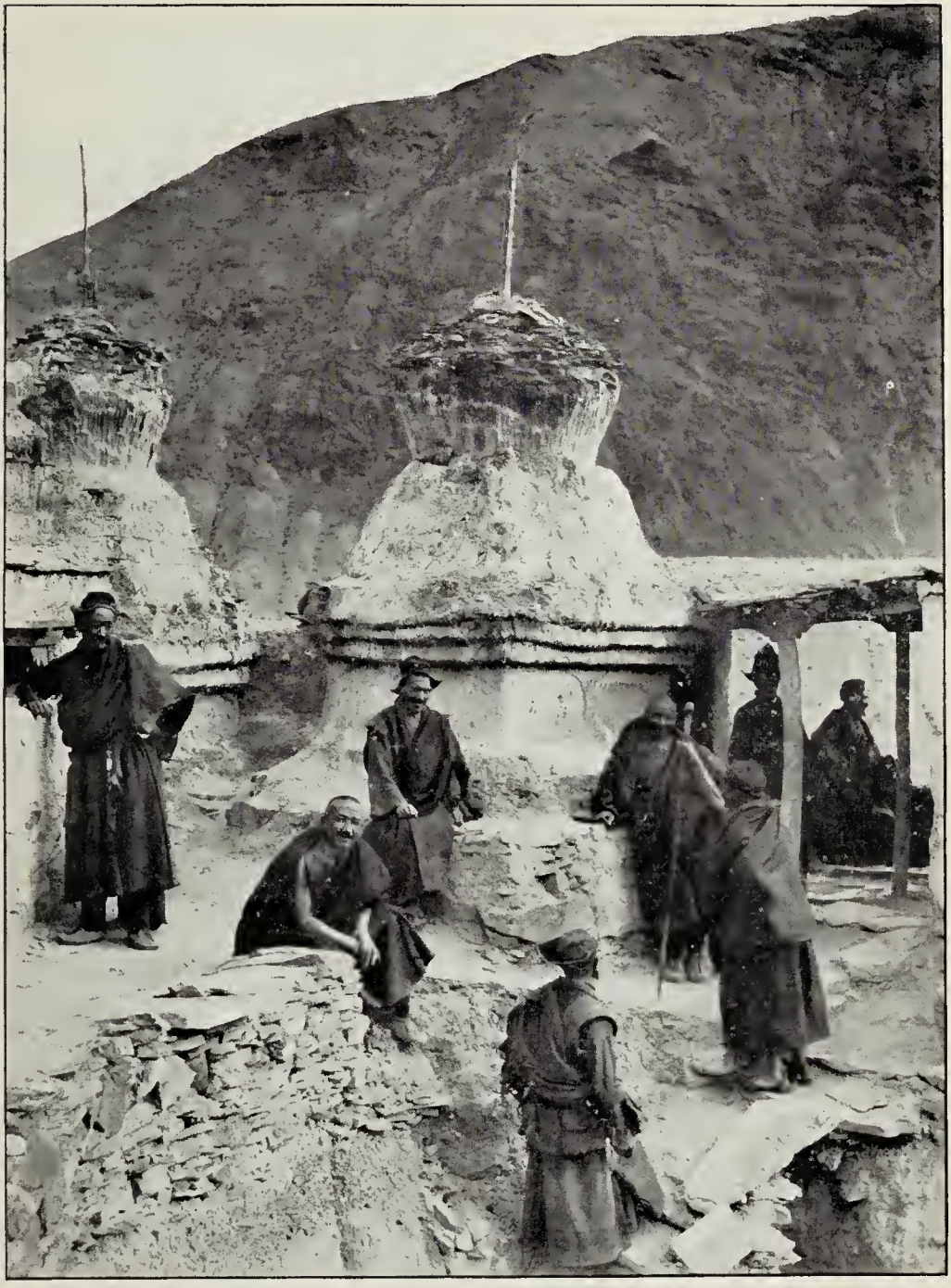
Colonel Ward mentions a curious custom in connection with burial of the dead: An aperture is left in the earth over the grave, and a rectangular box of masonry is built over this, with a small door and window. Flour is dropped down on to the body; this is done at intervals for a period of three moons. Afterwards the hole above the body is closed, as also the door and window.

Paskyim is at the mouth of a gorge, on the east of the Kargil plateau, and is overlooked by an abrupt rock, crowned with the ruins of an old castle. Here was fought one of the battles when the Ladakis attempted to resist the Dogra invasion. In olden times it would seem that there was constant intertribal warfare. Numerous forts, now ruinous, occupy the summits of isolated rocks, and

the old villages cluster round the foot. This adds greatly to the picturesqueness of the country.

At Mulbek, one march beyond Paskyim, we realized that we were in a Buddhist country. The symbols of Lamaism abound on every side. By the road entering and leaving the village are prayer walls covered with inscribed slabs of stone bearing the universal formula, "Om mane padme houm!" ("O God, the jewel in the lotus!") Between some of these walls, or sometimes in groups on the hill-side, are the sepulchral monuments known as *chortens*, some of which may be seen in the illustration opposite. On the roofs of the houses are seen ragged flags of various colours, or peculiar doll-like figures; while the monasteries on the ridge above dominate the scene. We halted a day at Mulbek to get a photograph and sketches of the striking scenery. The monastery is on an abrupt and lofty rock of grey limestone, on the west ridge of which sudden transitions of strata occur to varicoloured shales and slates and then to trap rocks. Across the valley is a splendid mountain, with the bold buttresses, castellated cliffs, and jutting towers so characteristic of dolomite rocks. These are still the home of ibex; but year by year shepherds push farther up the mountain glens and the improved rifles of English sportsmen prove more deadly, and soon the ibex hunter will need to cross the Indus to the less accessible regions of the Mustagh Mountains.

Crossing the easy Namika La (Salt Pass), the road leads through the fertile Kharbu Valley, in which one of the most conspicuous objects is the Stakse rock and monastery. Immediately above Kharbu, where another battle was fought against the Sikh invaders sixty years ago, there is a precipitous mountain which has been elaborately fortified in time past, and would afford refuge for thousands, so extensive are the buildings on its summit. On two sides it is protected by deep gorges, and on the face towards the valley the cliffs are sheer. The colouring of



From a photograph by Mr. G. Millais.

LAMAYURU MONASTERY.

the mountains is remarkable throughout Ladak, and nowhere more so than near the Fotu La. Looked at from the Kharbu Valley as we descend, the peaks suggest organ pipes, so vertical are the ridges, so jagged the ascending outline. And each pipe is painted a different colour, so that in rapid succession we have pale slate-green, purple, yellow, grey, orange, and chocolate, each colour corresponding with a layer of the slate, shale, lime-stone, or trap strata.

Very striking is the position of Lamayuru Monastery, in the defile beyond the pass. There is a bright yellow deposit several hundred feet in thickness, so horizontal at its upper margin as to indicate its being a lacustrine formation. This has been cut away into cliffs by the stream, and weathered into fantastic pinnacles and but-tresses. On a projecting point the monastery has been built, bridging over the hollows in the cliff with projecting balconies of woodwork and curious domes of *chortens*, man vying with nature to produce bold outlines and quaint effects. It was in one of these balconies (lit. "buland-khana," *i.e.*, high house) that Mr. Millais photo-graphed the sub-abbot of the monastery, a portly and genial old monk, just such as one might see in Italy. The party of Lamas was taken on the terrace surrounding a group of *chortens* quite on the highest point of the hill. There were nearly a hundred little prayer-wheels let into the face of the wall of the terrace, all of which are set revolving by the monks as they perform their devotional circumambulations.

To the Indus Valley is a descent of some 2,000 feet, down one of the narrowest and deepest gorges in the Himalayas, perhaps in the world. Travellers are always glad to hurry along the bare stony Indus Valley, where the heat is tropical in summer and the keen winds so Arctic in spring and autumn. There are pleasant villages, veritable oases, every six or eight miles. Khalsi, with its fine walnut-trees,

Saspul, with its expanse of well irrigated fields, and Bazgu, with its wonderful castellated rock of bright red sandstone, will live in the traveller's memory.

At Khalsi there is an inscription on a rock near the bridge which shows Brahmi characters, and therefore probably dates from before 200 B.C. In those days there was considerable trade apparently between India and China by this route, and a customs official was stationed here with the inflated title Mdo gtsong gtso, "Lord of the trade in the lower valley." The ruins of the old custom-house and of Bragnag castle, which picturesquely crowns the precipitous hill over Khalatse, have been recently examined by Mr. Francke, the archæologist. The Dards formerly ruled here, but were driven westwards by Tibetans about 1000 A.D.

Bazgu is another historical place, with its ruined castle, probably built (Francke) by Dragspa about 1400 A.D. The fortifications were very extensive, and a fine palace was built later. It stood a siege of three years when the Mongols invaded Ladak. Finally the Ladaki king invited the help of the Emperor of India, Shah Jehan, and a huge army was sent—600,000 warriors according to the Mogul historian.

It is impossible that such a host could have been fed, but with the resources of Kashmir behind them we need not restrict the number, as Cunningham suggested, to 6,000. Anyhow, the Mongols fled beyond the Pangong Lake, but King Delegs had to pay heavily, and the terms exacted by the bigoted Shah Jehan included that he should adopt Islam, read the Kalima, and send his wife and children to Kashmir as hostages. A commercial treaty was also made, not so one-sided as might have been expected, and to this day many of its provisions are in force.

A remarkable feature of the Indus Valley in these parts is that while the river flows at the very foot of the precipitous range on its south bank, it is bordered on the north by low hills, beyond which are wide, more or less undulating stony

plateaux, stretching north for miles to the feet of the lofty granite ridges of the main Ladak range.

There is a considerable amount of red sandstone, conglomerates, and other tertiary deposits in the Indus Valley, extending from eastern Ladak to near Kargil, and with these are associated volcanic rocks, chiefly lava-flows and ashes. Hayden says of this: "The deposition of nummulitic limestone seems to have been the final chapter in the *marine* history of the Himalaya and Tibet. What had, for a lapse of time which must be counted in millions of years, been more or less continuously the floor of the great sea, was now raised up to form the highest mountain range on the face of the globe." The fresh-water beds of the Upper Indus Valley mark the position of an old river valley or estuary which probably drained towards the east, to the Tibetan portion of the Tethys Sea, so that at some subsequent period the drainage has become reversed. It seems to me possible that the Indus at one time flowed nearer the northern range and subsequently cut its present channel; and that the plateaux of Timisgam, Bazgu, and Pyang are chiefly pleistocene deposits of alluvial origin. Glacial action certainly had its share in some of the surface boulder deposits, and moraines can be traced on a large scale above Khalatse and on the Pyang plateau. Near Spitak one notices some beds of clay, probably of lacustrine origin; such may also be traced in many parts of the Indus, and the most probable explanation appears to be that at times, owing to irregular elevation of the region, the deposits from side valleys blocked the river. In some cases the blocking seems to have been due to glaciers, as still occurs in the upper Shayok.

The gorge of the Indus offers many striking effects to an artist—the big swirling river, full of life and variety, and the huge cliffs, with their deep shadows, contrasting with the sandy plateaux quivering with sunshine, or the snowy tops seen up the side *nullahs*. The road is cut out or built up on

the face of the cliffs, but in places the gorges are so precipitous that the traffic leaves the river and turns across the high plains, which are such a prominent feature of upper Ladak. In autumn, sharpu (Vigne's sheep) come from the mountain recesses and graze in numbers on the plains above Saspul and Nimu. The natives hide in stone enclosures and shoot them when they come within easy range. In the upper *nullahs* another wild sheep, the burhel, is abundant, and still higher there are plenty of ibex, but on ground where it is difficult to get a successful stalk, so keen is the sight of the sentinel of the herd, and so fine the scent. Early in the summer sportsmen rush up to Ladak to occupy the better known *nullahs* of Zanskar and beyond the Indus, on the principle first come first served, and few of them fail to secure a few good trophies. Other travellers make their way direct to Leh, and are glad to leave the narrow Indus gorges behind them, and to see the wide expanse of the Leh Valley.

A good straight road leads from the Indus at Spitak, where it is a shallow, broad river, flowing in two or three channels, to Leh, and I enjoyed the gallop up on a good horse. It is an ascent of about 1,000 feet in 4 miles. This represents the average slope of the great alluvial fans which form the open expanse of the Leh Valley. A great part is stony and cannot be irrigated, so is absolutely desert, and the little villages are mere green patches in the bright yellowish drab plains.

Leh looks quite insignificant from a distance—all pushed up in a corner—and one wonders how this big village comes to be the chief market of Western Tibet. For most months of the year the streets are comparatively empty, and the importance of Leh is not to be estimated by its resident population, but rather by the caravans of merchants from Tibet, or, still more, from Yarkand, Khoten, or other parts of Central Asia, which converge here in the autumn. It was a good many years since my last visit, and I was

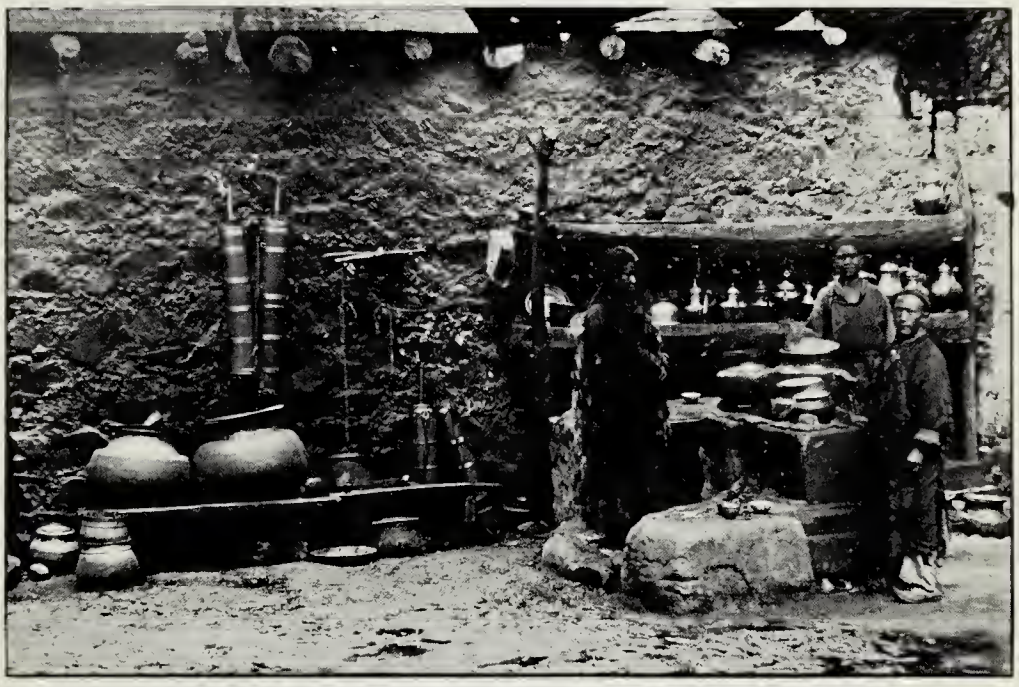
pleased by the generally well-to-do aspect of the chief bazaar. It is a fine broad street, planted with poplars and lined with shops, where one may inspect the wares of three contiguous Empires—China, Russia, and India. I hastened on to pay a visit to my kind hosts, the Moravian missionaries. Here they live, a simple colony of six or seven people, banished from civilization as well as from the Fatherland, but content to make the best of their surroundings and to do what good comes to their hands. And they have already gathered around them a few earnest converts from Lamaism, through whom a greater work may be done than any foreigners can accomplish. The Moravians have other missions to Tibetans at Kyelang and Po, in British territory, and have long waited for an opportunity to cross the border of Tibet. Some of them have become the leading Tibetan scholars, consulted as such even by the Buddhist monks, and have done important work in translating the Bible and compiling dictionaries. It may well be that the small but growing native Christian communities at Po and Leh may be the means of evangelizing Tibet, even if Europeans gain no access to that country. For a few months in summer there are a good many visitors—some sportsmen and some tourists. During our stay the British Joint-Commissioner gave a garden party, and Leh society assembled on his pretty shaded lawn to play Badminton. There were several ladies, whose fashionable costumes savoured little of the jungles; the French Consul-General from Calcutta; and Captain Kaye, the Settlement officer of Kashmir, as well as a sprinkling of travellers. Shades of Moorcroft! What a gathering within sight of the snowy Khardong Pass! It brings home to one that, however vacillating and short-sighted British policy may be, as when Moorcroft's intervention in Ladak affairs was disavowed some sixty odd years ago, time vindicates the inevitable supremacy of Anglo-Saxon energy. And now Captain Kaye has come with full powers to rearrange the

conditions of land tenure and taxation of Ladak and Baltistan.

In the case of both countries there is a good deal of poverty caused by ill-adjusted taxation and by unrecognized burdens. This is due not merely to the Kashmir officials, who endeavour to feather their nest warmly during their tenure of office, but to the claims in Ladak of the monks, and in Baltistan of the various petty Rajahs who still claim authority. There is a story told that a deputation of Baltis went with lamps lit to meet one of the Kashmir Rajahs when he visited the country, and told him that their land was in darkness owing to the oppression they suffered. In a few years most of the abuses alluded to will have passed away, but the problem arising from the over-population of a land where the cultivable area is so restricted presents much difficulty.

The most notable building in Leh is the old palace of the Gyalpo, a very lofty and massive pile on the corner of the ridge overlooking the town. The ridge is crowned by a monastery, in which is a gigantic image of Buddha; its shoulders are level with the ceiling of the temple, and a separate room has been erected above to contain the head. Some distance from the town is the old fort occupied by the garrison of Ladak. There are some fifty sepoys of the well-trained Imperial Service Kashmir troops, who were reviewed by the Joint-Commissioner during our visit. An English surgeon is in charge of the Government hospital, where a good work is done, especially in operating for cataract. Dr. Graham's fame has penetrated across the Tibetan frontier, and drawn patients from Rudokh. A doctor is joining the Moravian Mission, succeeding, after a rather long interval, Dr. Marx, whose grave lies in the little cemetery east of the city. Our stay in Ladak was saddened by the illness and death of Miss Irene Petrie, a most charming and accomplished young lady, who had been working as an honorary missionary for some years in

Queen of Ladak in Tibetan Head-dress.



Tibetan Kitchen at Leh.

Kashmir. Her grave lies near that of Brother Redslob, a venerable Moravian of such a noble character and so much Tibetan scholarship as to win for him from some of the natives the title of "Khutuktus," an incarnation of the Deity. In Ladak there is more than one Khutuktus. The abbot of the monastery at Spitak is the principal one; he belongs to the Yellow sect, which is in a great minority throughout Ladak. Most of the monks belong to the Red sect, so called because of the dark red caps and gowns they wear.

The two great amusements in Ladak are miracle plays at the monasteries, and polo. At Leh, polo is played in the main bazaar, all business being, of course, suspended. Seats are provided for the chief officials and visitors. A native band provided with clarionets, drums, and huge trumpets makes a joyful but hideous noise in celebration of each goal won by either side. The townspeople, grouped in the verandahs of shops or the openings of side streets, take a keen interest in the game. The chief merchants or caravan leaders join with local officials in the contest. Some are pure Ladakis, others, called Arguns, are half-castes with Kashmiri or Yarkandi fathers.

Mohammedanism lends religious sanction to most irregular and temporary marriages, and the evil reaches its height in such towns as Leh and Yarkand.

These *m'utah* marriages were actually permitted by the Arabian Prophet, but Sunnis say that he afterwards forbade them. The Koran says: "Forbidden to you are married women, except those who are in your hands as slaves. And it is allowed you beside this to seek out wives by means of your wealth. And give those with whom you have cohabited their dowry. This is the law. But it shall be no crime to you to make agreements beyond the law" (Surah lv. 28). According to the Imam code there must be a fixed period, it may be a year, a month, or even less.

We may regret the unblushing vice of European seaports, but it is condemned by most classes of the community as well as restricted by the law of the land. In Central Asia no attention is paid even to these very slight restrictions on divorce made by their Prophet, and there is no public opinion to condemn it, so that marriage is prostituted to the temporary convenience of a shifting population of various nationalities. It has been said that the Arguns inherit the vices of both parents and the virtues of neither. But this is not the opinion of those who best know Ladak, and who point out that the Arguns occupy good positions, due to their intelligence and energy.

Among the Buddhists the women have much freedom, and the custom of polyandry prevails. This has the effect of restricting the population, which would appear to be actually decreasing: and there are large communities of monks and nuns bound to celibacy. In the choice of husbands an heiress has things much her own way, though she seldom cares to exercise her power of divorce. There are few countries in which the women carry so much of their property on their heads. As shown in the picture, they wear a hood with curious projecting side lappets of black astrakhan; on the top and hanging down the back is a strip of red cloth covered with rows of turquoises and other precious stones set in silver. The turquoises are brought from China or India, and are not found locally; and though there are sapphire mines in Rupshu the stones are nearly all exported. The head-dress is an heirloom in the family, and though most of the turquoises have flaws and are of inferior quality, they are large and numerous, and the head-dress is often worth several hundred rupees. Gold and silver necklaces, bracelets, and anklets are also worn by the rich, regardless of comfort.

Our cavalcade as it left Leh was an interesting sight. One member of the party was mounted on a little Tibetan pony, equipped with a bridle of old rope and a high-

peaked wooden saddle, from which dangled huge stirrups attached by such short leathers that the knees of the rider were poked up towards his chin. One stirrup broke off in the first canter, and as the girths seemed likely to follow suit, and there were signs that the whole framework might fall to pieces, a halt was made in the middle of the bazaar, and another saddle, more substantial if less picturesque, was obtained. By the kindness of the Governor of Ladak we had obtained yaks for crossing the Khardong Pass, which was not at that time open for ponies. With their short legs and long bodies, shaggy manes, bushy tail, and formidable horns, these animals look sufficiently wild and fierce. They gnash their teeth in an alarming and excruciating manner, hence their scientific name, *Bos grunniens*, the grunting bison. On the upper plateaux to the east, herds of the yaks still roam wild, and may long continue to do so, yielding prized trophies to the hunters of big game. The wild ones stand fourteen hands high, but the domesticated yaks are a smaller breed. They are very useful as carriers in a region where other beasts of burden are not available, for they can pick up a livelihood by grazing in deserts where there is nothing to eat, and even that nothing concealed by snow; and on mountains they are as surefooted among chaotic loose rocks as on a path. I was mounted on one of these for the ascent of the Khardong Pass, simply sitting upon a folded blanket and grasping the animal's long mane so as not to slip off backwards. Our baggage was piled up on the backs of six other yaks.

The views, looking back, were very striking for several miles. Everywhere we saw the *manis* and *chortens* erected by Buddist piety in remote times; rich fields of corn, now in the ear, were terraced along the slopes and across the valleys; by the town were the lofty groves of poplar and the jutting towers of the palace, and of the monasteries perched higher up the hills. Far down the valley was the

silver streak of the Indus, beyond which are splendid ranges, now a deep azure, crowned with snow. But soon we were winding our way up a narrow desolate glen, and by night reached a camping-ground on the verge of the snows, where we soon lit fires, pitched tents, and made ourselves comfortable.

Before dawn next day we made a quick start, so as to cross the pass before the crust on the snow should be softened by the hot August sun. There were snow and ice all around, and the path was slippery in the extreme, but we reached the summit by seven o'clock, and were rewarded by a view stretching 100 miles or more west and east. West were the great snow-covered peaks of the ranges we had crossed, with the familiar cones of Nun Kun. East we turned to a new view, for the lofty Karakorum were in sight, unhidden by clouds, thrusting up craggy granite peaks 25,000 feet and more into the air. We lingered a while to take observations and photos, and then rapidly descended, partly glissading the still icy slopes.

This is the main road to Yarkand and Central Asia, but traffic is only possible for a brief space in the autumn, and even then the pass is sometimes not only difficult but perilous. On the north face there is a snow cornice, portions of which break away from time to time and rush in overwhelming avalanches down the gully and across the path. Only last year many men and horses of a Yarkand caravan were swept away and buried, their graves marked by the tossed up waves and pinnacles of ice which occupy the hollow, while the bones of former victims are extruded 2,000 feet below into the dark and silent tarn which occupies the head of the Khardong Valley. By the time we arrived there, we were all suffering from the headache which accompanies mountain sickness, and breakfast had for us no charms. We plodded on to a grassy place farther down, where we flung our-

From a photograph by Mr. G. Millais.

AT FOOT OF KHARDONG PASS.

selves at full length and sought rest. But the malaise did not pass off till we had descended some 5,000 feet to the desolate, uninteresting village of Khardong, where we pitched our camp in the shade of a few stunted willows. In the difficult ground near the lakelet above, where the snow-beds were thawing and the path among loose rocks was not yet clear, the yak I was riding showed much intelligence, selecting the firmer parts of the snow and remaining quite cool and deliberate in crossing places where the crust suddenly gave way under its feet. The shortness of the legs is then of great use, for the long body rests upon the surface, and without any jerk the animal can draw out the limb which has sunk in. It is said that yaks can discover by instinct any hidden crevasses in glaciers, and for this reason, in crossing an unknown and fissured snowfield, a herd of yaks is sometimes driven in front to select the path. It seems probable that by using their somewhat pointed hoofs to probe, as it were, in advance, they can discover crevasses without falling into them, just as an experienced guide does with his ice-axe.

It is but a short march from Khardong down to the Shayok River. From above, the gorge—down which the path leads—appears most uninteresting; it is so narrow as to exclude all view, and the mountain-sides above are absolutely barren. But in reality the path is charming. A clear mountain torrent dashes through groves of feathery tamarisk, which in August are in full flower, giving off a sweet scent. Creepers of yellow clematis grow over many of the bushes, and here and there in the fragrant thickets are seen deep crimson roses. Little patches of green grass occur in level places, the more charming because of the aridity of the surrounding scenery. In such an oasis it was pleasant to linger; so we bathed, and enjoyed a picnic breakfast in the shade before facing the sands of the Shayok. Further on we had an involuntary

bath. The stream spread out into a lagoon, where its waters were banked up by the sandy dunes of the valley. To cut off a corner, two of us tried to ford this on a small pony, but it fell in a quicksand, and we were precipitated into the water, boots and all. Laughing at the mishap, we left the pony, which our *soi-disant* guide then took by a circuitous route, and we struck straight across, not getting much wetter. The third member of our party, following after us at some little distance, went a little to one side and suddenly went head over heels into a deep pool. However, we soon reunited, and in that dry air and strong wind our clothing speedily dried.

The crossing of the Shayok was accomplished by means of ferry-boats. The river is quite 300 yards broad at Tsati, and is divided into two branches by a sandbank. The fierce slate-coloured water rushes down at a great pace, and one or two of our natives looked apprehensive of a calamity. The crossing took over an hour, as the ferry-boats were swept far down the stream, and had to be towed up the opposite bank, and then make a return trip for the rest of our party and baggage. The ferry-boats are kept up by Government, and without them the river would only be passable in the late autumn, or in the winter when the water is very shallow or is frozen over.

About 1906 a suspension bridge was built a few miles lower down. It must be regarded as a great feat to have brought the great steel-wire ropes and iron tie-rods up from Kashmir. A generation ago there was a great flood, which has left its mark on the valley for a fortnight's journey down. It appears that a side glacier crossing the Upper Shayok dammed back its waters to a height of two or three hundred feet, forming a vast lake. But the following year the dam gave way suddenly, and a flood-wave of great height, carrying rocks and bushes with it, swept down the gorges, devastating any villages placed near the river, and even sweeping back up the Nubra

Valley and ruining extensive tracks of cultivation by the immense deposits of sand.

The Nubra Valley joins the Shayok at Tirit, where we encamped under the first large trees we had seen for a week, some old and spreading willows. We were met by an official kindly sent by the chief or *Kárdár* of Nubra to assist us in obtaining supplies and getting porters or ponies for the baggage. Accordingly there was much display of zeal, shown chiefly by awful howls from a peasant standing upon a neighbouring house-top, and whose lungs seemed to be of twenty horse-power. He proceeded to shout for his friends by name, addressing his remarks as if they were half-way up the opposite mountain, as they may have been. A Ladaki might well replace a foghorn. Anyhow, his efforts proved successful, and the needed arrangements were made. The strangest thing about Tirit was that the paths, well bordered by splendid thorn hedges, were everywhere utilized as canals, and streams of snow-cold water a foot deep filled the road. However, at the entry of the village we were thoughtfully provided with gaily caparisoned ponies to carry us, and thus made an impressive as well as a dry entry. My services as doctor were soon in requisition, as there were many people with sore eyes. Some of the *chortens* near this village were much neglected, and contained scores of the little clay medallions partly made of ashes of the forgotten Lamas. So, of course, purely out of affection, I carried off a few medallions in my pocket to remind me of my friends at Tirit. An expert to whom I showed these considered that they were many hundred years old.

There is no part of Ladak more interesting than the Nubra Valley, which, to the people of the barren uplands, or to those who live in the narrow gorges of the Indus or Shayok, appears as a veritable paradise. Not so, however, to the traveller from Kashmir, accustomed to the sight of forested mountains and rich pastures. Relatively to

other parts of Ladak it is certainly attractive. From a climber's point of view it also has very special interest, although at first sight it would not appear so. On its east side are steep bare granite slopes, ascending from the flat—partly cultivated—valley, to a height of about 16,000 feet. The appearance is of a continuous and unbroken wall, and there is no glimpse or hint of anything grander. But every few miles this wall is broken by steep ravines, too narrow for any view, and so overhung at the outlet by beetling crags, rising almost sheer from the wild swollen snow-fed torrents that leap down the face of the dark cliffs, that access to the upper recesses of these gorges or *longmas* would seem denied to any but the wild sheep and the eagles that inhabit them. The large volume of drab-coloured turbid water that rushes from these valleys testifies to the glaciers that feed the torrents, and looking upwards, not a tree and scarcely any herb can be seen in the wilderness of cliffs and talus. I could well believe what a noted sportsman had told me, that these were among the most savage and uninteresting of valleys, and that at the upper end inaccessible ridges and peaks rose steeply from the large glaciers that filled the lower chasms. Natives of Nubra asserted that in the summer these valleys are rendered almost impassable by the unbridged and unfordable torrents. But to us it appeared certain that goat-paths would be found as far as the snow, as proved to be the case. We had one march, a long one, up the main valley. For many miles it led over a sandy plain, partly covered by thorny scrub; in places there were the graceful fragrant bushes of tamarisk, with their pretty tufts of pink flowers; then would come a rough stony walk across the alluvial fans which occur at the mouth of each side ravine, large portions of which are successfully cultivated. Like all other parts of Ladak, irrigation is essential to cultivation, and so porous is the soil that a large quantity of water is essential to

raise good crops. The people grudge no labour that is necessary. The fields are terraced and hedged, and much care is bestowed on the manuring, ploughing, and weeding of most of the enclosures near the villages. Being warmer than Central Ladak, they can ripen apricots, apples, and walnuts in the brief summer; and even grapes will grow, though seldom coming to perfection. Some of the trees are of fair size.

Tigar is the chief place, and contains some imposing buildings—an extensive monastery, an old mansion built by former Rajahs, and some temples. We were received in state by the dignified old *Kárdár* of Nubra and other local officials, who formally presented us with a sheep, some vegetables, and fruit. We sat in a solemn semicircle for a few minutes, but our luggage had been already sent on, and arrangements had been made for doing another march the same day, so we deferred a closer inspection of the place till our return journey. That evening we reached Panimik, the farthest village of any size in the valley and the base of our expedition.

So efficient was the help of the purple-robed official who had gone on in advance to make arrangements, that by next midday our coolies were assembled and supplies for several days arranged for. I had a "darbar" with the village greybeards, asking not about the lofty mountains at which we were really aiming, and about which they would know little, if anything, but about the highest grazing grounds to which they sent their flocks; and in this way we obtained information about the character of the upper valleys, near the glacier. A lad, called by them a *shikari* or sportsman, but really only a superior sort of goatherd, volunteered to show us the way.

We travelled as light as possible, and so had but twelve porters with the tents and other loads, and four others with provisions for the party. Some of them were too old for the work, but these were replaced the next day. The

guide pointed straight up the steep bare hill-side, covered with debris, and showed us the line of our ascent; and a more toilsome one could scarcely be found. The whole slope was a mass of loose disintegrated granite; most of it mere grit or sand, in which one sank at each footstep, and, as it slipped down, scarcely any progress was made. After five hours' climbing we still seemed but a rifle-shot from the village below, and the men appeared very exhausted, resting every five minutes. But at last we reached firmer rocky ground, and turned over the shoulder of the mountain into a valley not marked in the map, as its outlet was so very narrow as to have escaped the notice of the surveyors. By dark we found a ledge beside the thundering torrent, where grew a few tamarisk bushes, with space, not for the tents, but for our beds, which we proceeded to arrange among the rocks. Here we bivouacked, enjoying the sense of the picturesque wildness of the scene, which was soon lit up, not only by our camp fires, but by a bright, almost full, moon. A good meal, skilfully cooked, enabled us to appreciate the desolate and unusual position, and soon restored our porters to their wonted light-heartedness. It is the sense of contrast that enhances the beauty of an oasis in a desert land; and the comforts of good food and a warm bed are needed to intensify one's enjoyment of the grandeur and desolation of mountains. In a bivouac there is no selfish isolation; masters and men are all altogether, sharing alike, and thus get to know one another.

Tsering, our invaluable interpreter, now came more to the fore. Even on beaten tracks he had been very helpful, always cheerful and willing, dealing justly with the people, and yet preventing any attempts to cheat us. As a race the Ladakis are pleasant to deal with, frank, good-humoured, and free from suspicion; but Tsering was exceptionally good. Slighter in build than most Mongolians, he is also lighter in complexion, and has grey eyes;

and although he often looks rather melancholy, he quickly lights up, and always seemed able to make the best of his surroundings. He is a schoolmaster at Leh, but obtained special leave from the Governor to accompany us. The Moravian missionaries have found him a useful man, and his frequent contact with them may have helped to make him the man he is. On our journey he had many opportunities of showing his sterling qualities.

Our path next day led up the valley, and we had not gone far before some burhel were seen far up the opposite slope. We could see two or three resting in the shade of a big rock, but before the sportsman of our party could get within shot, although the stalk, which we watched, was skilfully made, the animals had gone off to seek better shade during the midday on a higher shoulder. Our valley began to open out, and we emerged on a series of small grassy meadows, evidently old moraines and lake-beds, where now are some shepherds' huts. The elevation is about that of the summit of Mont Blanc. Here the valley turned south-east, and at the head we saw lofty ridges and domes of purest snow, from which glaciers descended. On either side were very precipitous mountains, those on the south being very impregnable with their ice cliffs, and with their ridges guarded by splintered rocks and gendarmes. At this grazing ground our coolies wished us to camp, but pretending to know the valley by the map, which was, as a matter of fact, quite erroneous and misleading, we confidently told them that there was a small lake farther on by the foot of the glaciers, and that we would camp there and allow most of the coolies to return to the hut at night. The guess or, as it might be called, "scientific induction," was accurate, for the goatherds knew of a lakelet, which we reached in another couple of hours' steady but easy ascent, following the well marked sheep-paths. It proved to be about half a mile long, and there were other ponds near by, with some flat ground off which snow had recently

melted, and on which many little Alpine flowers, such as pedicularis and saxifrage, were already springing up. Here we pitched our base camp, the tents well pegged and fastened down with large stones. Some of the coolies remained with us, and we lent them a tent to sleep in; others returned to the goatherds' hut at Spanjuk to fetch more fuel. The position of our camp was carefully chosen, as we intended to rest there next day, Sunday, while becoming acclimatized to some extent. The elevation was just under 17,000 feet. Immediately across the lake was a hanging glacier. To the south-east the valley was closed by a huge dome of snow, its steep sides rent by schrunds and ice-falls, and its summit corniced. To the east, glaciers sloped gently up to a snow ridge, whose summit must be 22,000 feet above the sea. Even beyond our camp, and on the moraines of the glaciers, shepherds have erected small cairns, which they call *jayor*, to mark the path in cloudy weather. But in the matter of weather we were persistently fortunate, enjoying cloudless skies, and being able to fix our position in relation to the distant peaks which could be recognized on the map. We made various other observations, to examine the effect of the altitude upon ourselves and our men; but we did not experience any special breathlessness or other symptoms of the *mal des montagnes*, which Ladakis call "pass sickness."

At this base camp we left everything not urgently needed, all spare clothing, camp bedsteads, and the Kabul tents; in fact, we reduced our personal luggage to about 20 lb. apiece, but it was necessary to have shelter-tents for the porters as well as ourselves, to take warm bedding, especially our fox-skin sleeping-bags; then the camera and other scientific apparatus, the ice-axes and crampons were now needed, and three days' provisions were arranged for. So we needed six porters, to whom we gave very light loads, so as not to impede their climbing. On our march next day we proceeded up the valley for some hours, skirting the

side glaciers and ascending steadily. About midday a wild lateral moraine was crossed, and we struck the main glacier, which was at that point a mile or more in width. For the first time we now saw clearly one of the highest peaks of the Saser Mountains, which rises to 25,000 feet. Our valley led north-east straight towards the distant but fascinating dome. Progress was slow, and a hot sun beating upon our backs seemed to enervate us, while it thawed the surface névé, and so drove us on to the central moraine. In an hour or two we reached the upper end of this and struck across the open snowfield. In places the walking was very fatiguing, as we constantly broke through the crust into a mixture of snow and water two feet deep. Sometimes the water flowed on the surface, disappearing in some neighbouring pit. Crevasses were very few, and easily avoided, and although we were roped, the precaution was scarcely necessary.

On a side moraine we found a suitable spot for camping, where, sheltered by a big rock, there was an almost level bed of ice. Selecting some large flat slabs, we were able to make sleeping-places for ourselves and the coolies, and fixed the lighter tent like an awning from the top of the rock, so as to give us ample space for moving about. We were now at a height of nearly 19,000 feet. The boiling-point of water was below 180 degrees. Our coolies, who had walked pretty well, seemed quite contented, although one or two of them had suffered from the altitude. They settled down quickly to sleep, huddled together for warmth under the tent which we gave them, and which they did not erect, but used like a big blanket to cover them entirely over, heads and all.

Our cooking operations extended far into the night. It seemed as if the oil-stove gave hardly any heat and that the water would never boil. In fact, when it was only lukewarm we made some cocoa, and then proceeded to warm up the Irish stew. Progress was very slow, and next

morning much time was lost in melting the hard-frozen stew and getting water. Before starting we had to set back the indicators of our aneroids, which marked the big-rock bivouac over 21,000 feet. We set the hands back to 18,800, the correct height by our hypsometer, and thus were able to continue using them. The sun was very trying in that narrow valley, entirely filled with dazzling snow, and at first I felt quite unable for any severe exertion, and rested after every hundred paces, although my companions were fairly well. Tsering, the interpreter, had not complained before, but now he lay down on the snow, so he was sent back, and we took only the *shikari* with us. The valley appeared a *cul de sac*, and we ascended a fairly easy slope on the north, having to cut a few steps up the ice at one place. By 12.30 we were on top; the aneroid marked 3,500 feet above the bivouac, but the height was probably little over 2,000 feet above it.

By resting for a while in the shade, I quite recovered from my headache, and even got an appetite for the tough cold mutton and dry crusts we carried as our lunch. And then, roping and carefully avoiding the huge but very rotten cornice, we worked our way up to a splintered top, which we christened Panimik Peak, from which a most marvellous and impressive view was obtained. In front of us, and everywhere cutting off the peaks of our *nullah* from the central Saser range, was a sheer abyss, 2,000 feet deep. We looked down on to a vast glacier, part of which drained to the west of us into the Pokachu Valley, and part (as we discovered next day) into the Chamshing Valley, east and south of us.

Further advance, even for ourselves, leaving our coolies and baggage out of account, was quite impossible; and, even were it practicable, all thoughts of attaining to a greater height were forbidden, as we looked at the great ice-bound giants that rose so impressively sheer from the glaciers, just as some lofty, cliff-girt island stands out from

From a photograph by Mr. G. Millais.

VIEW FROM SUMMIT OF PANIMIK PEAK.

the stormy ocean. We were awe-stricken as we gazed. The nearest peak was also the highest; it rises to over 25,000 feet, and is somewhat table-topped, with lofty ice cliffs at the summit overhanging the precipitous sides. The other peaks, each over 24,000 feet, were quite separate, and lay farther away, and to the east and south-east.

These great peaks may be regarded as the east continuation of the Karakorum range, which extends from here to the north-west, culminating in the lofty peak known as K^2, or Mount Godwin-Austen, and beyond that blends with the Hindu Kush.

The only pass at present practicable in this range is the Saser Pass, from the Nubra to the Shayok Valley; and as we studied the conformation of the mountains, it appeared to us that it is near the Saser Pass that the next attempt to climb the highest summit should be made. We could see a somewhat easy ridge which ascends from that pass towards survey peak No. 41, 25,170 feet; but we had not time to perform the long detour of a week by which that ridge might be approached.

Next morning we once more explored the head of the valley, making an early start before the sun was up. Millais went up again to Panimik Peak, and obtained beautiful full-plate photographs of the view; and Tyndale-Biscoe measured a base line on the level snowfield to help in the mapping of the valley, hitherto unsurveyed. I ascended to the narrow col facing east. The snow was in fine condition, and we were so far acclimatized that the ascent was made almost without halting; where the slope was easy we took eighty paces a minute, averaging over 2 feet each. The crampons came in most useful on the steep, frozen surface, up which, without them, it would have been necessary to cut steps. On the top of the col I boiled water at 178 degrees, and took a sphygmographic tracing of my pulse. When resting it showed very little alteration from its usual condition after exercise in Kashmir; as a rule

I took such observations on my companions and myself while resting in bed in the morning. On this col, at the height of over 20,000 feet, my pulse was much as when climbing at about 8,000 feet—75 per minute when resting, and 100 per minute when slowly ascending. The respirations also varied from 14 per minute when at rest to 25 per minute during exertion. These observations tally with those of Whymper when he was at great heights in the Andes, and differ much from the statements of De Saussure, who says that on Mont Blanc his party suffered much from breathlessness, and that even mental work was exhausting. He wrote: "I was compelled to rest and pant as much after regarding one of my instruments attentively as after having mounted one of the steeper slopes." Balloonists have also experienced severe trouble from the rarefaction of the air at heights much below 20,000 feet. So the legitimate inference appears to be that men may, under favourable circumstances, become rapidly habituated to living at an altitude. In many parts of Ladak there are goatherds who spend the summer months at a height not less than that of Mont Blanc. Such men would probably ascend another 10,000 feet with little inconvenience from the diminished pressure and decreased amount of oxygen inhaled.

Beyond the col was a sheer drop on to the head of the Shamshing glacier. I threw a stone, which fell 1,800 feet on to the ice, scarcely touching any point of the cliffs. The view I now got of the more southerly peak showed an exceedingly difficult pyramidal mountain. I made a rough map of the peaks and glaciers, and then turned to the camp in three-quarters of an hour from the col. Starting quickly before the surface was at all thawed, we rapidly descended the glacier, and soon after midday reached our base camp, glad to be once more in comparative comfort.

It did not take us long to retrace our steps. The great stone slide which had taken five hours to ascend was

descended in half an hour. The village of Panimik looked quite fertile to us, with its hayfields gay with flowers and its shady willows. Near the village is a hot spring where baths have been constructed. I sallied forth with pleasant visions of a warm plunge bath, to be speedily disappointed. The water was scalding, with a temperature of 150° Fahr., which is more appropriate for lobsters than for men. No doubt with patience and some practical engineering one might have brought a stream of cold water to the bath. But I was content to examine its qualities by other methods than immersion. Moorcroft mentions this spring, and says that the temperature at the actual source is 165 degrees. He tried a bath for rheumatic pains in his shoulder, but derived more harm than benefit, for his clothes were blown into the bath by a sudden gust of wind. There was a saline deposit round the hot springs on the hill-side, of which I collected a specimen. It appears to be impure carbonate of sodium, of which considerable quantities were formerly collected near Panimik and exported to Kashmir. It is called *phula*, and is used as soap, and is also boiled with the tea and clarifies it, after which spices are added. The spring is not so copious as those of Chutrun in Baltistan, and has not the same reputation among the people for the cure of rheumatism and dyspepsia. An important factor in popularity is not found at Panimik. There is no temple or shrine in connection with the spring, hence there are no monks or moullahs specially interested in its development. At Tagur, which we reached next day, a stay was made to enable me to do something for any sick or blind people.

There were some monks in the large Samtanling Gonpa suffering from cataract; these were sent down for me to operate on them, and then I was invited up to the monastery. It is beautifully situated; not like most, high up on the top of a jutting barren rock, but in the fertile mouth of a gorge, where terraces have been levelled, now covered with plantations of poplar and willow and abundant apricot

and apple trees. A little lane bordered by a hedge of wild roses led up to it, and on the banks of the clear rivulet beside the path were many familiar flowers and fragrant thyme. The view over the valley extended, and soon we looked across the cultivated area, with its rich fields of wheat, and across the many branches of the broad river to the fort-crowned rock of Charasa, and up the valley to the mighty masses of rock and snow that divide Kashmir from China, and down the valley to the broad sandy plain where it joins the Shayok, and where the two great rivers sweep to the west in the deep narrow gorges overshadowed by the great ridge of Central Ladak. One peak, which rises some 12,000 feet sheer from the river, was especially beautiful, with the soft blue haze half hiding its base, and the clear-cut pyramid of snow catching the sunlight and reflecting in tender yellow or pink tones the ever-varying hues of the sky from morning to twilight. There is a virgin charm, a mysterious beauty, about such nameless heights, where no man's foot has ever trodden, quite different in kind from that sense of power and awe which creeps over us as we gaze upon the Jungfrau or the Matterhorn, with their historical associations.

The great U-shaped trough of the Nubra Valley, several miles wide at the bottom, is characteristic of glaciated valleys. At a height of over 2,000 feet up the slopes on either side there are abundant remains of a lacustrine deposit; a horizontal line, of a coarse grey clay, is seen here and there for 20 miles up the valley and on both sides. Probably some part of the Shayok Valley had become blocked; the deposit was again eroded, and then once more a lake was formed, of which the beach markings and shore caves may be traced high up the hills. Boulders the size of a house are perched about the rounded ridges up to 3,000 feet, and polished rounded surfaces of trap in the lower parts of the valley witness to the age-long grinding of the glaciers.

To return to the monastery, the monks gave us a warm welcome and showed us over. This is one of the chief centres of the Yellow, or reforming, sect in Ladak. Most other monasteries belong to the Red sect, in which discipline is less strict and morals more corrupt; in fact, scandalously so. In this "Gonpa" the monks are said not to eat meat nor drink beer. The abbot or "Hlobon" was a handsome old man, of ascetic appearance, with a shrewd, good-humoured face. He has distinguished himself by the vigour with which he has extended and beautified the monastery, building more than one new chapel. So far has Lamaism departed from the tenets of Buddha that even abbots are, after death, deified; and the images of former abbots, together with those of famed heroes of the legendary past, share with some stately and other hideous and obscene idols the daily worship and reverence of the monks. In the temple there is a double row of images, small and big, opposite the entrance. They are made of lath and plaster, with a covering of cloth and lacquer work. Before each is an altar, on which is placed the daily offering of grain, flour, oil, and water. The whole surface of the walls is covered with brightly coloured and fantastic frescoes. Around the various sitting figures of deities, uninteresting and conventional, which occupy the main panels, are many weird and forcible paintings, where skeletons are seen wrestling with one another, where demons struggle with men on horseback, and heroes endeavour to release the tortured souls of men. We have a grotesque Mongolian version of the people of Lilliput and Brobdingnag—giant demons with the tiny contorted figures of victims poking out of their hands or writhing under their feet. These pictures depict such scenes as the Lamas love to dramatize. At most of the monasteries there are great festivals, to which people resort from far and near. At the chief monasteries hundreds of monks join in the pageant, which is thoroughly suggestive to us of Christmas pantomime.

I saw a Lama drama on one occasion at Srinagar. The monks wear huge lacquer masks, representing demons and gods, mostly hideous, but all grotesque. Rich and highly ornamented robes of bright silks and satins are kept for these occasions. Demons with scarlet tights, masks, and tails rush in crowds upon the arena to attack and seize the unprotected souls of the dead, which are represented by almost naked shivering forms fleeing before them. Sometimes an effigy is tossed about, tortured, and burnt by them. Then the gods and heroes, sword in hand, their entry announced by wild flourishes of trumpets, rush in and drive away the evil spirits; and so, hour after hour, the play goes on, interspersed with monotonous chanting and dancing.

The masks and dresses used in these ceremonies may be seen hanging up in the corners of the temples; around the sides are arranged the various musical instruments employed in their worship—gongs, bells, flageolets, and trumpets. Some of the trumpets are telescopic, and can be extended to a length of seven or eight feet; and when well blown, the brazen booming resounds among the mountains, awakening the echoes.

The chief services at the monasteries are at sunrise, noon, and sunset, when most of the monks collect in the chapel. I have seen in some chapels two long cushioned benches stretching from near the altar to the door. Two or three officiating monks stand in front of the altar, reciting in a loud and rapid sing-song portions of the sacred books, the Do (precepts) or the Dulva (rules of discipline), and all join in chanting some of the *mantras* or hymns, while the instrumentalists break in at intervals with weird and melancholy music. The ritual is elaborate, and includes the burning of incense and making of offerings of flour, oil, and other things to the various gods represented by the images above the altar. These vary in the different monasteries.

Here are some specimens of the hymns:

"Glory to the chief Buddhas! Relievers of all suffering!
Master of all virtue! equal, equal to the Heavens! adoration!
'Om mane padme houm!'
Glory to the chief Vajras! fierce and greatly angry!
'Om mane padme houm!'
Glory to the chief Buddhas! he, he, he, Young Prince, emancipation!
Communion, memory, memory, great prowess, adoration!
'Om mane padme houm!'"

The following is addressed to the great teacher:

"Om, O Muni, Muni, great Muni, Sakya-Muni, adoration!
O, Lotus-bearer, hun! O fierce and greatly angry,
O Pleasure, pleasure, mighty pleasure, adoration!
O, Maitreya, Maitreya, great Maitreya, Holy Maitreya, adoration!
'Om mane padme houm!'"

In translation the reverberating cadence of the original Sanskrit is quite lost to sight. Many of the *mantras* are destitute of any meaning, and they are repeated over and over again as a mystic formula.

On great festivals the services are not allowed to interfere with the social joys and drinking of *chang*, and to facilitate the meritorious recitation of the sacred books prescribed for the occasion, the pages are distributed among the Lamas, who then chant their different portions simultaneously.

The use of engraved woodblocks, many of them beautifully carved, has tended to the wholesale repetition of these *mantras* and books, so that each monastery has its library; but as a new block had to be made for every sentence, originality was discouraged.

Where the doctrines of religion clash with the ordinary dictates of human needs, one will observe that even the priests of religion bring much ingenious casuistry to bear upon the point. Thus the Buddhists of Ladak are by no means averse to eating flesh, so long as they themselves

have not to act as butchers. Some pious Ladakis once laughed at a friend of mine who, at some risk to himself, rescued a sheep which was in danger of being drowned in a mountain stream. They were anticipating roast mutton for dinner! In former times capital punishment was carried out either by throwing the criminal into some river with a boulder fastened to his neck, or by lashing him to a St. Andrew's cross fixed upright in the ground. Stripped naked and exposed to the terrible cold of a Tibetan night, and the hardly less agonizing blaze of the sun by day, the victim was left to perish from thirst and physical agony, except in some instances, when tortures by means of red-hot irons or boiling oil were inflicted, with that cold-blooded cruelty which is perhaps specially Mongolian in its fiendish indifference to the suffering it inflicts.

Prayer-wheels abound on all sides. These contain in endless repetition the prayer, if prayer it can be called, "Om mane padme houm." One of the very largest of these prayer-cylinders is in a temple near Tagur. It is 8 or 9 feet high, and is supposed to be kept turning by water. As a matter of fact, it needs to be started by hand, and even then the water-power is insufficient to keep it going for many minutes.

Water-power is, of course, abundant in these mountainous regions, and, considering how seldom it is thus utilized, we may infer that the people do not put faith in such purely mechanical and automatic prayers.

Smaller wheels turned by the wind are numerous; there may have been nearly a hundred round the flat roof of this same temple. But the hand prayer-wheel is the most popular: there is something personal about it; it demands effort, however slight and reflex, and is believed to avert evil from the individual who carries it.

We must lament the degradation of such superstitions; but are they not better than the blank negations of

materialism? Lamaism must decay, is decaying, in contact with the outer world. Mohammedanism makes slow but steady progress wherever it has gained a foothold. Tibet is shut to all intruders, but even Tibetan jealousy cannot exclude Western literature. We have heard that in Lhasa itself a learned monk obtained a Bible and embraced its doctrines.

The influences at work are sure, if slow. Institutions will be changed. The monasteries cannot retain their former power in Ladak. When the settlement is revised, the peasantry will gain, but the Lamas will lose position and prestige. Polyandry cannot long survive the light of free contact with other people, and it is likely that the balance will be struck between the polygamy of Islam and the polyandry of Tibet, and that monogamy will be the general outcome.

In Nubra we saw many pleasant features in the people, who now thronged to me for medicine; they were always courteous, good-humoured, and grateful. They laugh merrily; a rare thing among Mohammedans. We saw no drunkenness. The *chang*, a light beer they make from barley, contains very little alcohol, and it is only intoxicating when taken in very large quantities. The squire of the village each day sent us a fresh supply in a handsome flagon.

Patients followed even to the Shayok: it was dusk when three poor blind creatures arrived at my camp. At first I refused to operate and told them to go to Leh; but who would take those women over the pass, 17,000 feet high, and provide them with yaks to ride on?

We were to start at daybreak and cross the river by ferry, then do a long march up the mountain; but their importunity prevailed, and I said if they would be at the river I would see what could be done.

At dawn it was both windy and rainy. At the ferry these poor women had slept with no food but a little raw dough.

We got into the boat and were swiftly swept down among the leaping waves, and landed a quarter of a mile down the other side. The ferry-boat returned for the rest of our party. I had my box of instruments, but how should I sterilize them, and how should I light a fire? I told the Ladakis, and they tried to strike sparks with flint and steel, but the tinder seemed moist. One of them then produced a little gunpowder and placed it on a stone, tore off a rag from his shirt and, fraying it out, laid it by the powder, then with flint and steel ignited it. Then a cooking pot was produced, and soon water was boiling. What an anachronism between the aseptic surgery aimed at and the primeval method of fire production!

While the instruments were being boiled I cleaned the eyes and instilled cocaine; then, kneeling in the sand, removed the three cataracts, completing the operations just before a gust of wind came, laden with dust and grit, which would have put a stop to the work. The gratitude of the people knew no bounds.

We made a rapid return journey, without special incident, doing two marches a day.

CHAPTER XX

THE CONQUEST OF LADAK

Song of a Mon Musician

The Tibetan Fiddle

Do not think that my fiddle, called Trashi wanggyal,
Does not possess a great father!
If the divine wood of the pencil cedar
Is not its great father, what else?

Do not think that my fiddle, called Trashi wanggyal,
Does not possess a little mother!
If the strings from the goat
Are not its little mother, what else?

Do not think that my fiddle, called Trashi wanggyal,
Does not possess any brothers!
If the ten fingers of my hand
Are not its brothers, what else?

Do not think that my fiddle, called Trashi wanggyal,
Does not possess any friends!
If the sweet sounds of its own mouth
Are not its friends, what else?

Refrain—

Shab shab ma zhig, shab shab ma zhig.

Francke.

THE story of the conquest of Ladak, Little Tibet, by the Dogras has never attracted public attention. It was a great filibustering feat, unaccompanied by war correspondents. The Dogra Rajah had no desire to blazon

abroad a forward policy of which the paramount Power might disapprove.

It was not so many years since the Sikhs had annexed Kashmir. One or two European travellers, notably Moorcroft, had wandered through Little Tibet. Francke gives the Ladak version of the visit to Leh. "The *sahibs* gave all sorts of rich presents to the noblemen of Ladak, and asked for an audience with the Gyalpo, which they only obtained after some months' delay, for, as they said, no one knows what evil there is in Indians!"

Moorcroft himself gives a vivid detailed picture of his reception by the Gyalpo, or King, who had tried to avoid having anything to do with the English; as it was commonly said that the foreigners first appeared as traders, then came a consul, and then an army. So the Wazir wrote to Moorcroft asking him to proceed by another road to Yarkand, "as the small-pox," he said, "was in some of the villages on our route to Leh, and we might by passing through them bring the infection with us to the capital." However, the traveller induced one or two leading Mohammedans to intercede for him, and pending replies he continued his journey, starting on horseback "at an early hour, so that we might approach as near to Leh as possible before replies to our application for permission to advance could be received."

A few days later he was admitted to an audience. He says, "The Mir (his Indian secretary) laboured especially to remove the impression that the British Government entertained any designs against the independence of Ladak, and we were fortunately able to produce some evidence to this effect, which seemed to have great weight with the Gyalpo: a letter from —— to the Mir, intimating a tender of allegiance for Kashmir, which he wished the Mir to convey to the Resident at Delhi; he had, however under my directions, declined becoming a party to the negotiations. If any secret purpose against Ladak had

been within our views, this would have been the readiest mode of accomplishing it, as the occupation of Ladak would at once have followed possession of Kashmir."

Moorcroft was unable to proceed to Yarkand, and spent most of two years in Ladak, exercising a certain amount of political influence, although rather discredited by the action of Sir David Ochterlony, the Delhi Resident. The Gyalpo appears to have desired to come under British protection, but it was too late.

Moorcroft suggested the desirability of building a fort as a protection against the aggressive Sikhs, but the lazy, kindly Tsepal Gyalpo half suspected his visitor's intentions; and while he was propitiating his gods and demons by the erection of huge idols of solid silver, the blow fell from a different direction—not from Kashmir, but from the hill country further east which had recently fallen under the control of the astute and able Raja Gulab Singh of Jammu.

There are but two passes east of the Zoji La for 200 miles, and it would have been easy to watch both the Bhot Kol and the Umasi La, and to hurl back into the snows any small parties of invaders. The hardships of the Dogra army must have been very great.

I have twice been by the Bhot Kol, experiencing sufficient difficulties with my baggage in the almost pathless Wardwan Valley, and have a keen memory of the fords of the swift, icy river, of the much crevassed glacier and lofty pass, over 14,000 feet, which on both occasions greeted me with a snowstorm.

The Ladaki fortified wall is several miles down the valley on the Suru side, so the Dogras were able to straggle across the pass and camp peacefully at Donara, accumulating sufficient force to capture Suru. Wazir Zorawar, a self-made man and bold leader, with 10,000 men, many of them seasoned troops and hill-men, chose the best time, at the end of July. The unwarlike Tibetans

were easily swept on one side, though the breastworks might have been held by a few hundred men against thousands.

Above was an unscalable cliff, and below an unfordable torrent, with no timber available to bridge it.

We have contemporary accounts from both sides. There are the chronicles of Ladak, which the Rev. H. Francke has recently translated, and the reminiscences of Colonel Basti Ram, one of the Dogra leaders, written by him at General Cunningham's request some twelve years after the events.

Suru was easily captured, and being Mohammedans, the people cared little for their allegiance to the Buddhist King of Ladak. The first battle took place at a fort some miles south of Sanku, on August 16, 1834. It is a very strong position, scarcely possible of being turned, for a snow-peak rises precipitously 7,000 feet above it. The massive ruins show how large a garrison the castle held. But the Dogras were far better armed than the defenders, whose chief weapons were bows and arrows and booby traps, with a few quaint matchlocks. On the second day the position was captured with a loss of only six or seven Dogras.

The Wazir stayed a month building a fort at Suru; and his troops occupied Kartse, and proceeded at once to administer the country around and levy taxes. Then the Dogras advanced down the valley, and after a few skirmishes reached Pashkyum, where there was a strong castle commanding the entrance of the gorge of the Wakkha River. This is a familiar spot to modern travellers, for the high-road leads just under its ruined walls. In the preliminary fight the boldest captain of the Ladakis, the young Wazir of Stog, was shot dead; and this was a signal for the superstitious Ladakis to flee, and as they retreated they broke down the bridge behind them. But the Dogras crossed the river on inflated skins, and advanced to Sod, a strongly

fortified place. By this time the Wazir had brought up some cannon, and a battery was erected. Nothing was effected in ten days, although they had lost forty men. The Wazir then ordered Mehta Basti Ram, who himself gives the account, to assault the place, and this was done before light next morning with such vigour and success that 6,000 men were captured.

This is probably a gross exaggeration, for the main Tibetan army was still lingering behind the next pass, and the Ladak warriors were adepts at escaping from danger. Meanwhile provisions ran short in the Dogra camp and the cold increased. Wazir Zorawar sent peace envoys to the Gyalpo, who with a very large force, estimated at 20,000 men, occupied a strong position commanding the precipitous defile of the Wakkha River.

The King would have gladly paid Rs. 15,000 to have got rid of the invader, but the Tibetan chronicles tell us that one of his Queens interfered to forbid it. Some of the envoys were treacherously seized and thrown bound into the river, and at the same time an attack was made upon the rear of the Dogras, probably from the passes leading to Llalun plain. So precarious was his position that Zorawar Singh retreated to Kartse, and had he been followed up vigorously by the Tibetans, famine and cold might have terminated the campaign. But the Ladak army merely consisted of peasants anxious to return to their own homes. They had to carry all their own provisions for a month, as well as their weapons and blankets.

Early in April the Ladaki generals advanced to the attack, but were surprised by the Dogras at the end of a long exhausting march through snow, and suffered so severe a defeat that the Dogras, using their prisoners as baggage coolies, advanced to Lamayuru without encountering any resistance. The Gyalpo sued for peace and invited Wazir Zorawar to his camp at Bazgu, and a few days later he returned to Leh with the Wazir, who only had 100 men

as his escort. A state Darbar was held, during which the Gyalpo's son, alarmed by the waving of a bag of money near his head, drew his sword; the Dogras at once did the same, but the Gyalpo fell upon his knees and clasped the hands of the Wazir. The prince and his followers retired into the fort, and next day 5,000 Dogras occupied Leh. Before the winter Wazir Zorawar retired to Lamayuru, and while there an attempt was made to cut his communications at the Wakkha defile, where the small Dogra garrison was captured and all put to death. With characteristic energy the Wazir by forced marches returned to Suru, and defeated the Ladakis by a night attack. From the prisoners it was ascertained that Mian Singh, the Sikh Governor of Kashmir, had instigated this treachery. Without delay the Wazir crossed by the Pense Pass into Zanskar, where he received the submission of the chief; then, pushing on with a large body of mounted men, he appeared before Leh. The Gyalpo was deposed and the Kahlun of Banka, a leading Ladaki general, who seems to have thrown in his lot with the invaders, was made King. But to secure themselves the Dogras also built a fort at Leh and placed it in a garrison of 300 men. Scarcely was this done before a rising in Zanskar had to be put down, after which the Wazir returned to Jammu, to find himself in disgrace for not having annexed the whole country outright and for having made the Banka Kahlun King.

The peace only lasted a year, then news was brought of a general revolt, and that all the garrisons were beleaguered in their different forts. This time the Wazir, after capturing the fort of Chatrgarh in the Chenab Valley, crossed the very lofty glacier Umasi Pass (18,000 feet high) into Zanskar. So intense was the cold that 25 men died and ten others lost their hands or feet from frost-bite. Throughout these campaigns Zorawar Singh acted with a promptitude of decision, a celerity of movement, and an

audacity in action which mark the born general. And he seems to have shown much tact in conciliating enemies, and to have succeeded as much by his leniency to those who had met him in fair fight as severity to those who had behaved treacherously. But he cannot be exonerated from the charge of loving conquest.

So long as Ladak was unsettled he avoided embroiling himself with the Rajah of Skardo, lower down the Indus Valley, but within a few years, in 1840, the opportunity of picking a quarrel came. The eldest son of the Rajah had been disinherited and a younger brother appointed as heir apparent. The prince fled for protection to Ladak, but with the connivance of the Gyalpo he was captured by a small party of Baltis and carried off. The Wazir, hearing of this, wrote to Rajah Ahmed Shah demanding the release of the prince. No reply being received to this, the Dogra general, late in the year, with an army of 15,000 men, advanced down the Indus. In many places the valley is impassable; there are mere goat-tracks leading over the top of stupendous precipices, and in places scaffolding paths, built out from the face of the cliffs with branches of trees and hurdles. The Baltis as they retired broke down the bridges and destroyed the paths. Zorawar Singh seems to have crossed the Chorbat Pass (16,900 feet) and occupied Khapallu, but winter was coming on and provisions were scarce. He sent a strong force of 5,000 men under Mian Nidhan Singh to turn the enemy's flank and to cross the Thulle Pass to Shigar, but the whole body was cut off and captured, except about 400 men. Things now looked dark, if not hopeless, for the Dogras. Winter was upon them and the passes in their rear were closed by snow, while their provisions were exhausted and the soldiers worn out and despondent.

But the frost which had so nearly destroyed them now proved their secret ally. The Indus very seldom freezes below Khalatse, but in a narrow gorge near Kharmang,

entirely shaded from any sun in winter, it was seen that some ice-floes had collected. Mehta Basti Ram, with one companion, explored this at night, and found that the ice bore except for about 20 feet in the middle, where it was thin. Quickly assistance was obtained, trees were cut down and laid upon the ice, and before daybreak floes had collected there and the first small party crossed safely. Most of these were so benumbed with cold and exhausted that they were unable to climb the steep bank, and they were in great danger of being surrounded and cut off by the Baltis had not Zorawar Singh sent some reinforcements. In the fight that ensued the Baltis, lost 300 in killed and wounded, while the Dogra loss was but small, but some 500 of them had been rendered *hors-de-combat* by the intense cold. Skardo fell within a few days, as the water supply was cut off from the fort, which is situated on a bare rock high above the Indus. To secure his new conquest Zorawar Singh deposed the Rajah and installed in his throne the prince Mohamed Shah, who had first invoked the help of the Dogras, and a garrison was left in a new fort which was built on the edge of the plateau overlooking the river, to protect the new King against his own subjects, as well as to keep him firm in his allegiance.

So far fortune had always smiled upon Zorawar Singh. Many times he had seemed upon the very brink of ruin: for years he was waging war in a mountainous country, with lofty snow passes in his rear, closed for many months by the icy grip of King Frost; the Dogra army had no commissariat department, but, in accordance with Napoleon's maxim, the enemy's country had to support the war, supplying provisions and carrying the baggage; his communications were repeatedly cut, and his garrisons besieged and sometimes put to the sword. And now the lust of conquest and of gold turned his head. He began to dream of an empire in Central Asia, and talked of invading Turkestan.

Had he heard of Kaniska, the King of Kashmir, whose wide-spreading conquests are recorded in the Rajataringini, those wonderful Sanskrit chronicles by Kalhana which place the early history of Kashmir on such a unique footing as compared with other Indian States? There must have been many Kashmiri pundits with Zorawar's army to whom the doughty deeds of Kaniska and Mahirakula may have been familiar. If it were so, we are tempted to wonder if the Dogra warrior had also heard of King Lalitaditya (699–735 A.D.), who, after subduing most of Upper India, had turned his face to the north, and after defeating the Tibetans in Baltistan lost his life while attempting to cross the Karakorum Mountains in order to conquer Turkestan. Had Zorawar heard of him it might have warned him against a similar fate. The enterprise to which he now turned was no less than the conquest of Tibet and the plunder of Lhasa. The British expedition of 1904 from the Darjiling frontier was easy as compared with the route from Kashmir, a distance four times as great, and mostly at an elevation over 12,000 feet.

Of the courage and the generalship of the Tibetans the Dogras thought little, but they had forgotten what the Czar Alexander called Generals January and February.

There was no difficulty in finding a pretext for the invasion. Former Kings of Ladak had ruled over western Tibet, and the claim was revived with as much or as little right as that of the Kings of England who invaded France in the fourteenth century. A large force was collected at Leh early in 1841 and without a blow Rudok was occupied, and all the monasteries in that district and the Upper Indus Valley were plundered. The Dogras, being Hindus, recognize now the affinity of Lamaism, which has indeed, in Ladak, borrowed many of the ancient deities of India; but the army required plunder, and the greed of the soldiers was backed up by the bigotry of some Ladaki Mohammedans, whose iconoclastic zeal knew no bounds. Images, pictures, *chortens*,

libraries, all were destroyed. Zorawar Singh found but little to despoil among the nomads on the higher plains, and pushed on to the head of the Sutlej Valley, not far from the sacred lake Manasarowa. It was not till early winter that the Tibetan army of about 10,000 men approached. December with its temperature of zero was their chief general.

With characteristic boldness the Dogra general did not await the enemy in an entrenched position in the valley, but pushed forward to meet them on the passes, doubtless hoping to defeat them signally and to follow up so rapidly as to establish his winter quarters at Lhasa itself. The battle-field was 15,000 feet above the sea and snow was falling. So terrible was the cold that half the Dogras were unable to handle their weapons. For three days there was desultory fighting, but at last in a hand-to-hand struggle the daring Dogra general was slain, and so complete was the rout of the Indians that with but few exceptions those who were not slain were made prisoners. Among those captured were several of the chiefs of Ladak and Baltistan, whom the Wazir had kept in his camp to protect himself from any risings among their people. Some of these were treated with extra severity by their captors as traitors to the Buddhist faith, while Ghulam Khan, the iconoclast, was put to death by torture.

Such was the end of a gallant but unscrupulous leader, whose career reminds us in many respects of Cortes, while the ill-fated Gyalpo and the Rajah of Skardo, who perished in Tibetan prisons, recall the unfortunate Montezuma of Mexico.

Zorawar left a permanent mark on history. But for him it is unlikely that Raja Gulab Singh would have either captured or held Ladak and Baltistan. The prestige of these successes attracted thousands to his standard and made the Rajah a great man. Had it been otherwise, had the Jammu Rajah been a petty chief of the outer hills, such as his brother

who held Poonch, it is highly unlikely that the Government of India would have entertained the idea of forcing the Governor of Kashmir, Sheikh Imam-ud-din, who held that country for the Sikh Raj, to make over the country to him —in which case the whole subsequent political history of Kashmir would have been very different.

CHAPTER XXI

THE MURGISTHANG GLACIER

A FEW years later (1907) the opportunity, long deferred, of having another nearer look at the Karakorum Mountains came. The people of Nubra had mentioned an old tradition that Kanjutis had once raided their valley from the north-west, from some pass at the head of the glacier marked Saichar; and I thought it probable that there might be some direct route to the Oprang, and thence to Hunza, whence the raiders came.

On this occasion my companion was Captain Oliver, the British Joint-Commissioner of Ladak, so we should have unusual facilities for transport and commissariat. He is in charge of the trade route all the way from the Sind Valley to the crest of the Karakorum Pass, nearly 400 miles. It is a route that has been used from time immemorial. Rock inscriptions show that it was used centuries before the Christian era. Chinese armies have swept over it, and for centuries the Chinese held fortified posts along it. Indian conquerers have defied climatic difficulties and established colonies on the north side, in the basin of the Tarim.

Of recent years more has been done to facilitate travel than ever before: depots of fodder and grain have been pushed up to the foot of the Saser Pass, much of it actually imported from Kashmir, involving three weeks' pony transport. Dynamite has blasted some of the cliffs, and iron

stanchions have been driven in to support the roadway. A splendid suspension bridge now spans the Shayok at Tirit, replacing the dangerous ferry, so often wrecked by the tumultuous waves and swift current. In spite of all this the natural obstacles are still great; the upper Shayok, with its deep wide fords, remains uncontrolled, and the Saser glaciers thrust their ice masses across the road, and a precarious path has year by year to be cut up the ice cliffs and loose moraine. Captain Oliver has been exploring the region to good purpose, working out a route which shall be open as regards snow for longer periods than the Khardong Pass can ever be, and by keeping to the left bank of the Shayok shall evade the difficulties of the river crossings as well as of the icy Saser Pass. In the course of another year a new road will be open with a better gradient, crossing the Chang La to Tanktse and thence up the Shayok Valley, a route hitherto only practicable in winter, when the Shayok was frozen or fordable. Future generations of travellers will forget the horrors of the Saser, with its grim trail of skeletons.

Captain Oliver was anxious to find a better route down on the north side of the Khardong Pass, which we crossed on the second day from Leh. The steep névé on that side, occasionally swept by avalanches, is not suitable for horses, which have to be brought over unladen, while the loads are carried by yaks. We found a safer line, another 100 feet or so higher and a quarter of a mile east, which the Commissioner ordered to be constructed during the autumn, with zigzags beyond the glacier leading down to the valley. It was a grey cloudy day, and we could not see the view of the Karakorums, which had been so impressive on my former trip.

We travelled up the Nubra Valley in official state, with two sets of tents, a Union Jack always flying in front of the Commissioner's, and met at each village by the headmen, and sometimes by a whole posse of monks and the

monastery band, consisting of drum, cymbals, flageolets, and gigantic trumpets.

I met some of my old friends and former patients, people on whom I had operated ten years previously for cataract. The following is from my diary:

"I write under the apricot-trees of Tagur. Irrigation has here made the desert blossom like the rose: fields of beans and corn stretch down to the broad river. The road past the camp is lively with travellers from Central Asia, and strings of ponies and yaks go past, bearing the products of Yarkand, its hemp, felt, and silk, and one sees parties of Turkis straggling along on their year-long pilgrimage to Mecca.

"The village is close by, and in it quite a number of patients are now quartered, who have come from even more remote villages—cataract cases, such as the three old women of whom I took a photograph. Near by is an old man who fell from the yak he was riding and broke his clavicle, and a Tibetan whose leg was broken by a falling boulder when crossing the dangerous Saser glacier. Each morning there is a little crowd, and Joseph Tsertan, schoolmaster of Leh and perhaps the only convert from this Nubra Valley, preaches to the sick folk. While work is going on two monks come from the monastery of Santanling inviting me to visit the abbot. The road is of the nature of a watercourse, so we prefer to strike across country, raking on one side the powerful thorns piled up as a hedge, and striding over the waste of sand and stones, tufts of grass and lavender, and driving one or two hares from their haunts. Higher up we follow the path, occasionally using stepping-stones to avoid the swift stream; on either side are high tufts of blue lavender and yellow-spotted clematis, now bursting into silky pods.

"Then we come to the monastery, half hidden away in the small poplar grove at the mouth of a glen, where the monks have cut channels for the rushing glacier stream

and reclaimed the hill-sides, planting orchards and terracing fields. It is a charming picture as we approach the picturesque buildings, with the sun glancing through the grove of trees and on the rippling stream. My guide strikes what sounds like a gong, but is really a large stone giving a high-pitched musical sound, and other monks hasten to receive us, while one secures the fierce old mastiff which guards the gateway. We pass through a courtway where two old women are at work stoning apricots and spreading them to dry on the flat roof. Several lads wearing Lama robes join us, who are being trained as monks, but look dirty and ill-disciplined. In front of the chief temple, with its beautifully carved porch, I am offered a seat till the abbot appears, when all rise to receive him, and the village headmen, taking off their caps, bow to the ground. The picture shows the old man in the centre, with his crutch, for one knee is contracted with rheumatism, and he is over fourscore. His features must once have been handsome, but are now deeply lined with asceticism and age, and he has kindly grey eyes. Eleven years ago I called on him here, and then operated on an old monk for cataract, and these two old men are the only ones left of those who were inmates at that time, and when I asked after my former patients both the old monks burst into tears. We conversed through an interpreter for some time, and afterwards Joseph had a talk with the abbot, and I looked round the temple with its interesting frescoes of ancient saints, including one who they said had been a physician as well as abbot, and had performed wonderful cures—'like the *sahib*,' they added with Oriental courtesy."

At Panimik we met some headmen and others summoned by Captain Oliver, who reported on the path to the Siachen glacier. They all agreed that the path was blocked by the swollen river, and would only become passable with the frosts of autumn, when the Nubra River falls several feet and becomes fordable at many places. We resolved to

try, and marched up the valley to Kaweit, where we then found a bridge, which was, however, swept away the following spring. The upper half of the Nubra district above Panimik is called Yarmá; there are some beautiful villages, with delightful hayfields partly shaded by ancient gnarled willows of great size. By the little watercourses one picks buttercups, louse-wort, gentians, and many other familiar flowers.

The red spirelets of the *chortens* and picturesque little shelters, whose walls are lined with inscribed stones in various designs, are attractive, and sometimes at a little distance whitewashed houses with red roofs among a clump of trees remind one of little Swiss villages.

At one part we look across the river to the dark gorge up which zigzags the road to the Saser Pass. Beyond this the valley closes in, and on the left bank the great granite wall is very sheer and lofty. The lower 500 feet of it are still moulded by ice, and far higher up can be traced two or three distinct lines of deposit, which I regarded as signs of ancient lateral moraines, or possibly even beach markings of old lakes.

Our farthest camp was at Gonpa, and to get there we had to ford some very swift side torrents, coming from glaciers which appeared only a short distance up the ravines. Shelma, the Crystal Peak, flashed up there in the sunlight. Mr. Collins, of the Survey, did some very excellent climbing in 1911 on Shelma and other peaks, in order to triangulate Teram Kangri.

A mile or two beyond Gonpa we were brought to a halt at the side of the main river, which here sweeps the foot of a sheer wall of syenite, thousands of feet high. Captain Oliver had arranged for a skin raft (*zak*), but it would have been useless.

We had one or two great *pahlwans* (athletes) with us—men of Herculean build, accustomed to fording deep rivers. They gave us a wonderful exhibition of their prowess, wading

in with long jumping-poles, and progressing in a swift icy current more than waist-deep by a series of leaps; but when the water became shoulder-deep they could do nothing but swim till swept down to a shallower place. We did not feel disposed to emulate them, and in any case our porters could not have followed. So we had to turn; but it was a great disappointment, for we could see the magnificent snow crest of K^{12} to the north-west, and the ice river at its foot coiling away into the mountains. I had no dream then of the magnificent size of the Siachen, the greatest glacier in Asia.

The local men told us that in autumn their goats were taken up the valley beyond the snout of the glacier for one march, to a camping-ground where there were many rose-bushes; hence the name Sia, meaning the wild rose. Beyond that they said natives had penetrated two more marches, and that there was a connection with the Remo glacier, at the head of the Shayok. This may be the case. The Remo has yet to be explored.

At Gonpa there is a very quaint and ancient monastery, whence the name, with one or two monks, and some very ancient images of Buddha, a stuffed snow-leopard, and other sights. The people had told us and other previous travellers of a "heavenly light" which might be seen near the monastery by the faithful. We speculated what it might be; my suggestion had been that it was a deposit of borax or of some fluorescent salt which continued to radiate at night some of the light it had absorbed during the day.

Gulawan Rasul thought it would perhaps prove to be an aperture in the summit of a cliff through which a star might be visible. The reality was disappointing: a dark red felspar cliff, on which a lichen growth had traced weird phantom outlines, in the midst of which was a small patch of orange lichen. I am not an iconoclast by disposition, for there is much in nature that is indeed mystical; and as I sat there gazing, the mysterious outlines on the cliff seemed to assume

the shape of a gigantic goddess. The natives say it is a *chorten*; and I can quite imagine a devotee gazing until the shadows seemed peopled and lights dancing.

Every third year there is a *mêla* here, to which pilgrims come from remote parts of Ladak. The monks only remain for the same period, and then return to a less secluded monastery.

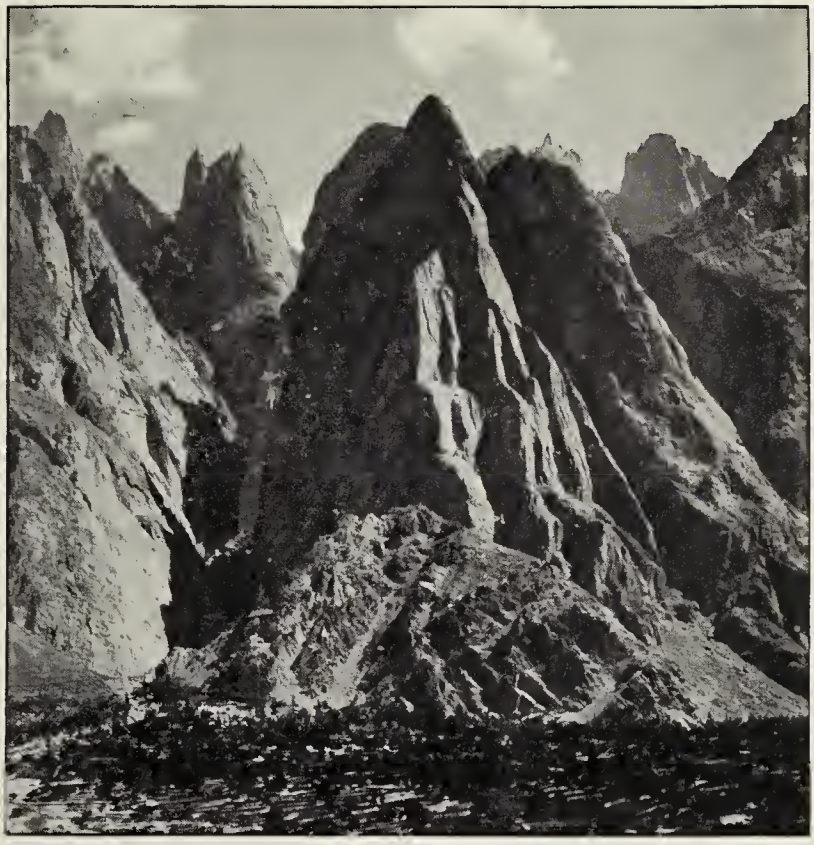
We now turned up the Saser to examine the glacier marked "Murgisthang," of which the correct sound, as pronounced by the Nubra people, seemed to be "Moṇstong." I was attracted to it by the glimpse I had caught from Panimik Peak of a long straight glacier leading due north, with a col at its head between two magnificent peaks.

The Central Asian highway leads by well-graded zigzags up the Tillam But spur, and formerly crossed the Changlang ridge high up; but a path was constructed by Captain Godfrey by blasting and scaffolding down into the gorge at Umlung.

All this gorge bears unmistakable signs of ice action and moulding to a height of many hundreds of feet; while the whole valley shows patches of moraine, with huge semi-rounded boulders at intervals. On the north side is a hanging glacier with seracs.

Above the camping-ground Tutiyalik, which is on an old glacier basin, the whole valley is blocked by ice, and the road goes up and over rounded slopes to the south-east. All the hills on that side bear marks of a former ice-cap; it is only the few summits above 21,000 feet which are not rounded off. The great Saser Peaks stand back behind these and dwarf them all.

I examined the snout of the Murgisthang glacier closely and photographed it. There were no signs of any recent retreat; the lateral moraines are only well marked for about 100 yards beyond the present ice cave, from which part of the river originates. There is a second source several hundred yards to the left (north-west) along the ice wall, which varies



Saltoro Spires.

Bilaphond Glacier.

from 50 feet to 100 feet high. The portion of the snout which crosses over the valley and rests against the southern slopes was nowhere more than 200 feet high and 100 yards broad, and the large stream from the Saser Pass tunnels under it. Above the tunnel is a small sandy plain about a quarter of a mile long, and half that breadth, which looks like a recent lake-bed, and evidently within the last ten years the Murgisthang ice must have temporarily blocked the Saser stream. The conformation of the grassy plateau beyond this to the east shows that the next glacier in that direction, now nearly 2,000 feet higher, has previously entirely covered it. The lower part of the Murgisthang is tremendously upheaved, with mounds of black ice and surface ponds of large size. It took us and our porters two hours to make one mile. The top of every mound was very loose boulders and sandy debris; below were cracks and water, so we made very slow progress. I guided across to the trough outside the lateral moraine on our right as we ascended.

Where glaciers have shrunk the old lateral moraines usually make good walking; but we found evidence of growth, fresh ice and debris invading the hill-side with no definite lateral moraine for some miles.

Beyond the first transverse glacier things became easier. We found some grassy patches, on one of which we camped. The coolies, who had seemed very exhausted, at once recovered their wonted cheerfulness. We had tent accommodation for them all. Our fuel was rather restricted, but we gave them some to cook with. They soon dug up some fibrous moss roots which burnt like dry peat, and when I took them round some tea and tobacco after dark, they chorused their thanks, and seemed thoroughly contented; later we heard them chanting some Ladaki songs, characterized by curious cadences, rising and falling in runs of the pentatonic scale. Next morning we made a good start and the going was much better. Another side glacier joined, but instead

of the tumultuous seracs which so often occur at such places, we found swelling rounded ice terraces free from crevasses. Beyond this were some well marked lateral troughs, with level snow-beds in some parts and vegetation in others.

It is very delightful to see the bright pink clusters of oxytropis, or the pretty mauve astragalus growing in such wild, desolate frozen valleys. Up to 16,500 feet there is rich grass on any moist sunny slope where any mould has had a chance of settling. But in most places avalanches and debris of the mountains are too active to give vegetation any chance. There is little bird-life in such regions, but we saw a few *ram chikor*, the great snow-partridge, and some few small birds like wrens.

One or two butterflies were also seen, looking indeed forlorn and out of keeping with their Arctic surroundings.

We made rapid progress after getting away from the chaotic ice and moraines of the lower 6 or 8 miles to more normal glacier conditions. Here and there were places difficult for porters, transition corners from one lateral trough to a side glacier, and thence on to a lateral moraine. As we ascended, the real size of the glacier could be better seen—not, as in the Survey map, a mere trough of ice 5 miles long, but with extensive transverse ice streams pouring in on each side, those on the east coming from precipitous splintered peaks, palæozoics and gneiss; those on the west flowing down from wide snowfields, leading back to a range of no great height, perhaps 21,000 feet, the water-parting of the upper Nubra. It was obvious that the valley had never been visited by a surveyor, only drawn in from a distant view, probably from the Saser Pass. Round a bend we came in full sight of the wonderful cliffs of K^{32}, 24,690 feet high, now only 2 miles from us. The névé basin is at a height of 18,000 feet, and is fed chiefly from the steep snow slopes to the right and left; for the great peak rises with a sheer cliff of 4,000 feet of pale grey

pink granite, bare of snow, then alternate bars of snow and rock, and finally an ice cliff at the summit (24,090 feet).

We crossed the glacier to a central low rock spur, and there was some delay in finding a passage over one or two crevasses: most of them were easily jumped. At the foot of the spur was a comparatively level stony corner, with room for our Whymper tents, so we resolved to camp, as beyond this the snow-cap seemed complete. Our camp was about 17,700 feet, the height determined by boiling-point and aneroid.

To the north-east was the great peak; another glacier joined in close by us from the north, and from the west a large one joined, which apparently came from a beautiful snowy peak to the north-west, somewhat the shape of a lion couchant, and about 23,000 feet high.

We were fresh after an easy day, so I went off exploring, and somewhat rashly took only one man, a sturdy fellow we called Panimik-Pa, who had been with me on my previous expedition. I wanted to see more of K^{32}, and tracked up the glacier. We soon came to a softened crust of snow only a few days old, and so put on a 30-foot rope, and advanced carefully, sounding for crevasses. The ice-axe went in almost to its head everywhere, which delayed progress, so I pushed on, taking the risk, and we had not gone far when I fell through, and found myself sitting some 12 or 15 feet down a crevasse on a ledge of snow. A few feet lower the crevasse narrowed and was full of water—a black depth. Above was only the broken skylight through which I had fallen.

I still grasped my ice-axe and was unhurt, and my only fear was that Panimik-Pa would come too near the edge and be dragged in. I must have given him a smart jerk in falling. With his help I soon got out, cutting steps on both sides in the granular ice.

After this lesson I proceeded with more caution till we reached a firmer surface, and then made rapid progress

to a small knoll, probably about 1,500 feet above our camp, from which a good view could be got of every corner of the cirque. No part of the flanks of the great peak looked accessible, so I decided to try the other glacier next day, and quickly returned to camp, finding the surface already getting firmer with frost. For years I have roamed the mountains guideless, and this is the only occasion on which my inexperience or carelessness has brought me near a mishap. For one thing, I usually go late in the summer, when crevasses are plainly visible. The danger is greatest early in the summer or after an early autumn snowfall, when narrow crevasses have a weak ceiling. But the roped party should never consist of only two persons, for if one falls into a crevasse the other may be unable to help him out, and any delay is dangerous from the cold and exposure. For myself, I realized that I had been rather near the "Golden Gates" of the next life, and was rather surprised to find my nerve quite unshaken.

We made elaborate preparations for warmth that evening after a good meal, and got into our sleeping-bags with hot-water bottles, for the sake of keeping the water warm as well as our feet, for it is miserable slow work thawing ice in early mornings to make a cup of cocoa. But, as has happened to me more than once, we were too hot, and before midnight were sitting up to throw off excess of clothing and let a little fresh air into the tent. After that we slept, but not well, for the shaly stones under our hips seemed to grow larger and harder during the night.

We were ready to start before sunrise, and took Gulawán Rasul and two Ladakis, all equipped with crampons and roped. The upper glacier proved quite easy, and after a few hundred feet of gradual ascent, the névé basin was reached, scarcely a mile long and almost level. A col quite low, perhaps 500 feet, but very steep and icy, closed the head

of the valley; on the west was the rock and ice *arrête* of Mount Lion Couchant. The slopes on the east side of us looked practicable, so, avoiding a small bergschrund, we worked up it. There was a narrow steep ridge of broken rocks which helped us, but it became too precipitous above, so we traversed some very hard blue ice to the snow slope, which proved very easy going, considering its steepness. The surface for some hundreds of feet was fretted into small hollows, with narrow ice ridges making reliable steps. Without crampons we might have had to do a good deal of step-cutting, but with them our only care was the breathing. The pace had been rather fast all the way, and no rests had been allowed, as we knew the sun would soon soften the top crust and add greatly to the danger of causing an avalanche off the smooth ice a little below the surface.

By 9.30 a.m. we were at the top of a ridge, with a superb view to $K3^2$, which seemed to overhang us. An hour's scramble would have put us on its sharp steep western *arrête*. To the north we overlooked the col and saw a great glacier stretching far away, apparently flowing north and then east to join the Remo glacier. Beyond this were many serrated peaks along the line of the Karakorum watershed, which we estimated by the eye as from 22,000 to 23,000 feet. One rather higher mountain stood out to the north-west; but shining in the far distance we saw some great giants which I felt sure must be Gasherbrum and Bride Peak, 65 miles away. It was a fascinating view.

We took photographs all round the compass, and I made a boiling-point observation. It was not till the following year, after returning from the Siachen glacier, that I looked up the photographs taken from the Murgisthang ridge and identified Teram Kangri in that taken to the north-west.

Oliver and I both began to feel headaches, and there was nothing to tempt us farther on that line. The base

of exploration must next be up the Remo glacier. So we descended rapidly, glissading some hundreds of feet to the névé below, taking the narrow bergschrund *en route*. From there it was barely an hour back to camp, where we breakfasted, and then started down, our porters gaily shouldering their light loads and jumping over the narrow crevasses and trotting down the ice slopes, singing as they went.

These mountain men are really wonderful in their patient endurance and willingness. I venture to quote some words of Major Bruce, endorsed by Dr. de Filippi and the Duke d'Abruzzi: "The different native races are much worse fed, certainly worse clothed, and probably more superstitious regarding the great mountains than the Swiss were a hundred years ago, and yet there was considerable difficulty at that period in getting even the best chamois hunters to undertake any new bit of exploration. What would have happened if a whole village had been ordered to send every available man with some unknown Englishman and to stay with him for a fortnight above the snow line is better imagined than described, yet this is what must necessarily occur in the Himalaya."

De Filippi speaks of their uncommon strength and powers of endurance, their temperateness, their amenable and gentle dispositions. At the outset they may be somewhat suspicious, and perhaps not without cause, as some Europeans do not understand any of the languages of this region, and are completely in the hands of Kashmiri or Indian subordinates, who have no sympathy with the porters, neglect their comfort, and even purloin their scanty wages. When once they see that the *sahib* personally arranges for their rations, fuel, and pay, they soon give their allegiance and are trustworthy and faithful.

CHAPTER XXII

A JOURNEY TO THE KARAKORUM

IN the early spring after our journey to the upper Nubra and Murgisthang glacier, I received a letter from Dr. T. Longstaff, of exploring and mountaineering fame, both in the Caucasus and Garhwal Himalaya, mentioning his proposed trip across the Karakorum Mountains to the Oprang Valley and return by the Saltoro Pass, and most courteously inquiring if it would interfere with any of my plans.

I hastened to assure him that, with only the short leave which could be available for me, my plans could not extend so far as the Oprang, and ventured to suggest that he should start by the Saltoro Pass, of which I had heard from the natives of Khapallu, and return by the Nubra route; and added that I should like to be allowed to join his party for a few weeks. To this he kindly agreed, and by April my house was the busy centre of arrangements for the journey, and several Whymper tents were pitched in the shady garden.

Lieutenant A. M. Slingsby, of the 56th Frontier Rifles, also arrived, with two stalwart orderlies, hillmen, Gulab Khan and Attar Khan. Our plans were much assisted by the keen interest of Sir Francis Younghusband, who was then Resident in Kashmir. It was a curious thing that he had been the officer selected twenty years before on account of his remarkable achievement in crossing the Mustagh Pass to explore the north side of the range

from the Karakorum Pass to Hunza with the view o discovering if any other pass existed, and that the Foreign Secretary had specially mentioned my report of the supposed Saltoro Pass in confirmation of what Vigne had written fifty years previously.

Sir Francis Younghusband obtained and restudied the field-books and maps of the Oprang River, which he had then surveyed up to a pass supposed by the Survey authorities to be the Saltoro, and in doing so he discovered that the compilers of his map had extended his route considerably too far to the south, and that in reality there should be a blank space on the map between the actual Saltoro Pass, as drawn from the Bilaphond glacier by Mr. Ryall, of the Indian Survey, and the snow col observed by Captain Younghusband in 1889 at the head of the Oprang.

Another very interesting point was made in the discussion of the problem by Sir F. Younghusband and the Duke d'Abruzzi, who was then a guest at the Residency on his great journey to K^2 and the Baltoro sources. The Duke pointed out the identity in outline of a sketch made by Younghusband from the north with the photographic views of Gasherbrum from the south. This confirmed the explorer's view that there was a large area unaccounted for, and it became our definite object to fill the gap.

The *terra incognita* stretched as far north as the Aghil Mountains, and north-east to the source of the Yarkand River, explored by the intrepid Hayward, who was murdered a few years later in the Hindu Kush.

Some of this ground, at least the summits of the mountains, had been seen by Captain Oliver and me from Murgisthang ridge the previous year, but no guess could be offered by us as to the nature of the country. I thought it possible that a wide plateau like the Dipsang might exist, but that it would necessarily be all snow.

My companions had three days' start of me, as I wished

to make the most of every day of my leave, so they were at Gagangair, over 40 miles from Srinagar, on May 24, 1909, and I galloped out on relays of ponies.

It was early in the season and the great beds of avalanche snow (*shina-māni*, as the Kashmiris say) lying in the gorge below Sonamarg, with scarcely a track across and a very steep fall to the torrent far below, warned us of possible difficulty in crossing the Zoji La next day. Longstaff and I crossed one place cautiously, cameras in hand, and placed ourselves in readiness to snapshot any exciting incident that might occur, but the calm, experienced baggage ponies walked over without slipping.

We camped late in the afternoon in the beautiful glade of sycamores and pines at Baltal. It had been a bright day and the mountains quite close above began to practise artillery. For an hour or two there was a cannonade off the crags, avalanche after avalanche thundering down. A waterfall high above us was blocked intermittently by the huge snow masses, and these broke through and volleyed fragments of ice and boulders down the cliffs to the fan of debris, a few hundred yards from our tent. It was fascinating to watch it.

We started next morning by lamplight, and ascended the Zoji by the winter route, reaching the foot of the steep ascent up hard avalanche slopes between black slate cliffs just at early dawn. The summer route is a well made 8-foot road blasted along the top of the cliffs on the west side. There was no real Alpine difficulty, but it needed very surefooted mountain ponies to carry our loads up such steep slippery zigzags. One pony stumbled and its loads fell off and slid towards the gulf, but were caught by Longstaff himself, and the *markaban* (pony man) saved the animal. We then assisted to carry the load to a safer place, where it was readjusted, and the hard snow was in very good condition from there over the summit. Even Mitsahoi was quite under snow, so we plodded on another

4 miles to a bend in the valley where there was a dry place for camping as well as a supply of fuel. Not long after our tents were up a Kashmiri *shikari* with us, Ahmdhu by name, spotted a brown bear some miles off on a grassy slope beyond the river. Longstaff and Slingsby, both keen sportsmen, tossed for the chance, and the former, who won, left camp long before daylight, and forded the river on one of the baggage ponies.

Even at that early hour, when the water is nearly 2 feet down from the afternoon level, it was not an easy ford. The sportsman was out of sight when at sunrise we emerged from our Whymper tents; our baggage ponies were in sight, but four of them had not only crossed the river, but had grazed their way at least 1,000 feet up the mountains, and it took nearly an hour for their masters to drive them all in.

We reached Dras in good time, and the hunter rode in empty-handed an hour or two later. The bear had made tracks during the night. At Dras there is a meteorological station, and we compared our aneroids and thermometers with the records there. There were other Europeans encamped—one, a young officer, who was in bed and anxious to see a doctor. He had signs of slight appendicitis. Next morning I was anxious to know whether this would detain me, but he seemed better. In fact, he was so much better as to resume his journey and even go shooting a few days subsequently, but three weeks later, arriving at Peshawar, he sickened and an operation for acute appendicitis had to be performed. It was fortunate for him that the threatened attack was postponed until he got back to civilization.

Another traveller was the talented authoress of "A Girl in the Carpathians," who was interesting herself in the strange half-savage lives of the Balti and Brokpa women of Dras. We travelled with her part of the next day, as she was going to Ladak. But at the fine new suspension bridge over the Dras River at Kharal we parted, as our

route crossed it, and turned down the Suru Valley towards Skardo.

At Kharbu we slept in a very shady grove of willows, where in hot weather sandflies are apt to be troublesome. It may be the *Phlebotomus papatasii*, and is probably, like others of the species, the carrier of a germ which causes a three- or five-day fever in many of these higher valleys, above the range of malaria, and a good deal of illness among the troops in the Punjab.

It was near Kharal that there was a fight when the Sikhs first occupied Dras and advanced down the valley. Below this the Suru River cuts a deep gorge through the range which borders the south of the Indus. Our camp was at Gangani, and next day at Olting Thang; the latter is a large village spread out along the hill-side, high above the river, and watered by a canal brought for many miles from a side *nullah*. The cultivation looked very rich; every inch of soil has been utilized and terraces built up laboriously.

There are gold-diggings down on stony flats above the river. The whole of the soil seems to have been turned over, and most of the diggings are now abandoned. A tax is levied of Rs. 15 per annum, which deters the villagers from digging, and in any case they can only hope to make a few rupees in the month. Looked at from a height the small pits look like marmot burrows; and it reminds one of the old fable mentioned by Herodotus of the gold-digging ants in this region. A few miles from this we saw the confluence of the Suru and the Indus far below us.

The great Indus Valley is a gorge between the Ladak range on the north and a less well marked range which may best be called the North Zanskar on the south. In a former article on the subject (*Geographical Journal*, November, 1910) I said: "At 77° 25′ E. the Indus comes into close relation with the North Zanskar range on its left bank, and for a considerable distance much of its trough may be

regarded as cut into the flanks of that range. Indeed, it seems possible that previously the Indus may have flowed on the northern side of the somewhat isolated hillocks which now fringe its banks, east of Khalatse, and that the great plateau deposits of Phyang, Bazgu, and Timisgam have filled in its former bed."

At the corner where the Suru joins there is a bend of the rivers more to the north, and the Indus cuts across the strike of the rocks, which is north-westerly. I saw the rocks well for the first time, as a new path has been blasted and built out right along the face of the cliffs for miles. The former road, which our transport had to follow, ascends to at least 1,000 feet above the river.

The strata dip almost vertically, and were chiefly mica schists and other metamorphics of a very dark colour, but I found a considerable thickness of limestones, pink and grey, with some fine specimens of marble. There seemed to be no fossils in the freshly quarried rocks at the side of the road. Beyond this we came to greenish shale, with intrusive dikes of granite. These varied strata give a striped appearance to the great bare mountain-sides, very marked on any day when the sky is overcast and the rocks damp. Another very noticeable feature is the light buff-coloured clay deposit which clings in places to the top of the cliffs, hundreds of feet above the river. In some places the clay is superposed on smoothed, perhaps glaciated rocks. These clay-beds are of great thickness, and of tough hard material. In one or two places I noticed a horizontal stratum of sand, only a few inches in thickness, which has taken a very curious convoluted appearance, crinkled as if after deposit the whole layer had been gradually but forcibly thrust to one side. The elevation of the upper edge of these clay deposits varies very considerably at different parts of the Indus. The most probable explanation is that at one period in recent geological time the river valleys became blocked at many points,

either by alterations of the level or by excessive silting and formation of talus with landslips. Near Kharmang we saw the signs of a recent large slip: part of a hill-side, consisting largely of light grey gneiss, had flaked away from a height of about 3,000 feet and fallen into the river, which is still washing away the toe of the slip. Another not improbable factor was the ice pushing down side *nullahs* with immense moraines, such as may be seen below Kharmang.

In some of these ways, perhaps in all of them at different periods, the great river was blocked and formed a string of lakelets, which must have existed for many centuries. There is something very fascinating in watching these great processes of nature on the spot. These remains of lacustrine beds remind me of half obliterated sphygmograms, tracings of the pulse of the great river. The waters sweep along with an ever varying life, sometimes just a broad chocolate-coloured swirling flood, then churned up among rocky chasms into a fierce turbulence, the incarnation of passionate power, then receding almost from view in such a deep still gorge that the waters look purple, almost inky, and a sullen heaving motion is all that is perceptible.

Marching along by its side, I often longed to be floating down on a *zak*—a raft of inflated skins—and thus escape the toil of the loose sand and stony paths, with the heat reflected from the bright glaring cliffs on each side. But when it came to trying it, below the confluence of the Shayok, and we had been spun round in one or two whirlpools and narrowly escaped being swept over some rapids, I experienced a feeling of the remorseless power of the great river, and the futility of any efforts to guide a craft whose only recommendation was its buoyancy. A well-equipped Canadian canoe would be different; but even that would be instantly swamped and broken up in some of the semi-cataracts and rapids I saw.

The general impression of the Indus Valley with its

chaos of rocky debris and its vast mountains bare and desolate is of a "crumpled-up Sahara"; but in all the stronger contrast is the impression made by the wonderfully verdant village oases which are met with every few miles.

In a single pace, stepping across a tiny watercourse one leaves a desert and enters a garden. Outside and above that little trickling runnel is nothing but loose sand and burning hot fragments of rock; inside and below are beautifully kept cornfields, and orchards in which even early in June the apricots are shining amber and gold. By the side of the canals are the starry blossoms of columbines, the light blue codonopsis, a maze of delicate gypsophilum, and bushes almost hidden by deep crimson roses, or the trailing spotted orange creeper of the Tibetan clematis. Mulberry and walnut trees are also met with, while the tender swaying green of willow avenues shades the path, sometimes for half a mile or more.

Such is the contrast between the two banks of the river at Kharmang, united by a swinging bridge of twisted birch ropes 120 yards long. So we soon left our men in the shade of the hut, among the burning sand, and crossed to the little paradise on the opposite bank. We went to call on the Rajah, Ali Sher Khan, whose picturesque ruinous castle is seen a mile above the bridge. He now lives in a mansion of Balti style, pleasantly situated overlooking the river, with some fine old chenar-trees shading his little garden; and he received us in an upper room, only partly carpeted, but with carved woodwork, a painted ceiling, and well proportioned arches to the spacious *bála-khánà*.

There we were regaled with tea and cakes, and looked out on the sun-lit valley.

The Rajah is a pleasant-faced young fellow of Persian features, and is shortly to be married to the daughter of a neighbouring Rajah. I asked about his father, Rajah Ahmán Ali Shah, whom I had met many years before, and then tried to get some further light on the Dogra conquest.

"Why did not your grandfather stop the Dogras?"

He replied: "The Rajah of Skardo at that time was Ahmed Shah; he was a tyrant, and the whole country was in a bad state. My grandfather, Rajah Ali Sher Khan, was at war with Ahmed Shah, and so when the Zorawar Singh came he helped him."

"Did the Dogras come across from Khapallu?"

"No; they came down the Indus, from near Olting [at the junction of the Suru River], where they made a bridge."

"Does the river freeze over in the winter? I have read that the Dogras crossed on the ice."

"Ali Sher Khan made a bridge of ice below Olting corner; when the sides are frozen, then willow branches can be put out, and more ice forms round them. Sometimes it freezes across above this place."

Evidently the co-operation of the Kharmang people was active, and Baltistan is another example of the maxim "Divide and conquer."

"How did your country become Mussulman?"

"A great moullah came from Khorasan, and taught the people. We are Shias; the Nur Baksh sect are in Khapallu, but not here."

I asked him where he had been taught, and why did not he go to college in Kashmir or in India.

"It is not the custom of my country; we of the Rajah family do not leave our own *jagir* (estates) until we are grown up, and then, first we marry, and then go and pay our respects to the Maharajah at Srinagar or at Jammu."

I urged the importance of getting a better education, and that without it the whole administration would have to remain in the hands of Babus from India and pundits from Kashmir; but apparently he had no desires except for an easy time in his own home, and occasional sport.

The side valley to the north is reserved for the Rajah, but apparently there had been some dispute about the shooting with the watchers in connection with the game laws.

Longstaff then raised the question of crossing the Gansi La to Khapallu : and the men replied that the pass would not be open "till apricots ripened," in another month's time. I said that the weather was now good, and that in Europe we went up the mountains early in the summer, but "perhaps the Baltis did not like climbing on snow." This put them on their mettle, and they replied that the Baltis were hill-men, like ibex, and could go anywhere. So the Rajah ordered that four porters, strong men, should be ready to accompany Longstaff over the Gansi La.

We had discussed it previously among ourselves, and decided that the attempt should be made, as the view of the Karakorum range from the summit might be of valuable assistance in recognizing the Survey peaks and starting Longstaff's map. I knew most of the details about the Gansi pass from an officer who had returned by that route from Khapallu some years before.

We tossed to see who should go over, and who should accompany all the baggage round by the valley route, and the latter duty fell to me.

So I was off early next morning, and watched Slingsby and Longstaff safely over the rope bridge, with the two orderlies and four Balti coolies very lightly laden.

A mile below, our path turned to the left across a stony plain. It is one of the most chaotic parts of the whole Indus Valley. The great river, here narrowed to some 40 yards by huge boulders, falls about 30 feet in 50 yards, all boiling surf, and after that falls another 100 feet in the next mile.

The main strike is here across the river from the left bank, north-west to the right bank ; and the opposite cliffs on the north side are much flexed and distorted, with alternate light and dark bands of gneiss and granite. They form rounded polished knolls up to 1,000 feet and more above the river, and above the knolls are gigantic perched boulders of apparently morainic origin. The side valley up which Longstaff went, the Ganche Longma, contains a deep lake

a mile long, many hundreds of feet above the Indus, and the outlet is blocked by a rocky barrier, almost certainly an old moraine.

I am inclined to locate about mile 36 from Kharal the site of the dam which held up the Indus and formed the lake which stretched up beyond Olting.

There are extraordinary sloping lines of old moraines for some miles on the north side of the river, beginning about 800 feet above it at the 39th mile, and traceable up to over 2,000 feet at the 36th mile.

While saying this, yet the phenomena of this valley are so complex and on such a huge scale that every ten miles seems to raise fresh problems, and it would be merely wearisome to the reader were I to discuss all the contents of my diary stage by stage.

We only stopped an hour at Tolti to change porters and enjoy the cool shade, with the beautiful cascades from a side *nullah*. On a former journey the path had wandered all day up and down steep slopes without our seeming to make any progress, but the newly engineered road changes all that.

Tolti is in a dark hollow so overhung by cliffs that in winter the sun does not put in an appearance at all, and in summer only for two or three hours.

It was getting dusk by the time we reached the long strip of cultivation at Parkuta, where I rested in the bungalow. Next day by breakfast-time I was at the wide confluence with the Shayok, and we made signals to call the rafts over. There is here a broad sandy plain. The Indus was then, on June 3rd, much deeper than the Shayok and of about equal breadth; but while the former river was now at its full summer height, the Shayok was day by day increasing, and only reaches its greatest height in August. At the junction the Shayok is the swifter and shallower, and tends to deposit sandbanks and cut fresh channels. It is obvious that the Indus derives most of

its water from the snows of the true Himalaya and the Zanskar Mountains, whereas the Shayok is chiefly glacier fed, and those glaciers are of enormous size and not quickly affected by the heat of early summer. The *zak* raft crosses quickly from the Indus side, landing on the Shayok bank below a knoll among boulders of slate as well as granite. But on the return journey it is swept far down; then comes a long portage across the sand, so that one complete circuit takes forty-five minutes. Each raft brought fifteen loads and eighteen men, and it took over two hours to get the whole party over.

There is a large development of slaty rocks and schists in the hill-sides above Kiris, where we camped in a shady walnut grove amongst a number of hamlets. These are wonderfully fertile and well watered, on a plain 50 feet above the present river level. If there had ever been a big flood in the lower Shayok these hamlets would have been wiped out. I inquired vainly for any tradition of the 1841 flood both here and at Gohn, a few miles farther up. The oldest men could tell me nothing, so it would appear that the flood Cunningham describes in 1841, which did much damage in the upper Shayok, did not make itself felt here.

I called on the Rajah of Kiris, who has a comparatively small *jagir*, and had a little talk with him.

Next day we pushed on past Kuru, where I changed porters, and past Kunes to the more open valley above the great exit gorge of the Shayok, which here cuts its way right through the Ladak range. This is one of the wildest, most terrific gorges in the Himalaya, so suggestive of some great convulsion of nature, as if the backbone of the mountains had been bent until it snapped. On either side are great cliffs towering one above another, and under each is a mass of loose fragments tossed about in wildest confusion. These rocks, many of them the size of a cottage, are mostly sharp and angular, but some with

hollows or rounded surfaces telling of prolonged exposure either to water or ice action. Their varied colour, ranging from ochre to dark purple, is further enhanced by patches of yellow and scarlet lichen. In the sun they weather to a warm madder-brown. The roar of the distant torrent far below floats up on the gusts and reverberates among the cliffs.

Wind of the torrent, wind of the mist-wraith, wind of the hill,
What is your message for our gaunt, grim crags,
As with a harsh fantastic mimicry
Of deadly rage you rush upon their strength
In clangour of attack;
When with a hollow thunder you assail
Their lichened pinnacles, battering upon
Their sullen buttresses, spurring the mass
Of furious cloud about their damp grey walls
In savage ecstasy of passion;
Until at length
Turret and bastion pulsing with the shock
Of joyous frenzy, bellow to the gale:
The bluff blunt cliffs roar out their answering glee
In deep reverberations: cleft and cave
Echo the boisterous chorus from hoarse throats:
The torrent shouts its triumph to the rocks,
And the rock answers with the vicious notes
Of volleying stone-falls;
Full of frolic every precipice
Shakes with new tumult, flings the onset back,
Stakes the shrill coursers of the flying clouds
With trenchant edge, and rends the grey mist-flags
In shrieking eddies through the gaping pass?

G. Winthrop Young.

Early next morning I started off my baggage, but stayed an hour treating patients and then followed on horseback. From Dowáni to Khapallu the valley is wide, level, and much of it well cultivated, with very lovely hamlets almost buried from sight among the large orchard trees.

The Shayok spreads out in several branches with shifting sandbanks. Before midday I was at the ferry, and with my powerful field-glasses could see the figures of Longstaff and Slingsby on the further bank, quite a mile away.

Five *zaks* were ready for us, and I crossed in the first, excited at the prospect of hearing how my friends had fared on their risky mountain trip, and a little proud of our own successful forced marches, having covered six marches in less than three days. I took my lunch-basket with me, and it was very welcome to my comrades, who had been on poor fare for two days. It was most interesting to hear from Longstaff how the Kharmang porters had deserted at the end of the first day's climb, when they found that there was still much snow on the pass and all very soft. However, the two mountaineers and the two orderlies shouldered their own rucksacks, some 20 lb. apiece, and undauntedly struggled up the steep 3,000 feet to the summit (17,100 feet) in spite of the snow, in which they constantly sank to the knee. That night they camped among rocks in a narrow gorge, and next day arrived early in Khapallu, much to the astonishment of the natives. They could scarcely credit that these two *sahibs* who dropped into their midst without any porters had really crossed the Ganse La, and had, moreover, carried their own luggage. I do not doubt that the exploit, which was reported far and wide, did much to modify the opinions of the Rajah and his people as to the prospects of success of our plans to cross the Saltoro Pass.

Rajah Sher Ali Khan called to see us, and Longstaff then gave him the letter of introduction so kindly written by Sir Francis Younghusband, commending us to his help. Next day we returned the Rajah's visit and attended a most interesting game of polo, in which he and his nephew took a prominent part. We obtained photographs of the scene, which was very picturesque with all the gay clothing and turbans or small caps decorated with flowers. The horses are gorgeously caparisoned. For two days we were now hard at work laying in provisions, and Rajah Sher Ali went to personal trouble in assisting us, even giving sacks for our flour from his own store.

It seemed quite clear from our conversation with the Rajah and Wazir that no one knew anything about the Saltoro Pass. They were unwilling to commit themselves to saying that the mountains either at the head of the Kondus or the Bilaphond were impassable, but said that in the days of their forefathers men went that way to Yarkand and also to Nubra. I came across one or two patients who had been treated on my former visit, but not many sick people came, as all the villagers were so busy with their crops.

CHAPTER XXIII

SALTORO AND THE BILAPHOND PASS

WE were a larger party than ever starting from Khapallu, as Wazir Abdul Karim was sent with us, and his attendants and our extra six or eight loads of provisions brought our numbers up to forty-five men.

It looked only a mile or two across to the little villages dotted along the fan of the Hushe Valley; but there was no direct road, so we had to cross the plateau behind Khapallu to a ferry some 8 miles up stream.

The whole valley at this point has probably been filled with ice, of which there are abundant signs down to within a mile or two of the confluence with the Indus. Since the great glaciers retreated, an immense amount of re-excavation has been done.

There is also evidence of former lakes, 1,000 feet above the present river level. From the plateau we had a lovely view of Masherbrum Mountain, far up the Hushe *nullah*, while north-east of us was the most remarkably serrated line I have anywhere seen, many of the peaks being over 22,000 feet high, and the foremost line resembling the outline of some great city full of spires, columns, and towers. Seeing it, we at once realized how great would be the difficulty while marching in the valleys of fixing our position relative to any of the few measured Survey peaks.

We plunged down 2,000 feet of loose material to the Shayok Valley, here a sandy desert several miles wide, with just a fringe of rich cultivation.

Men had been sent from Khapallu with plenty of skins; these are carried inflated, and at times look most gruesome, like decapitated carcases, at other times most ridiculously lifelike, with their four legs sticking out and shiny distended bodies, like fat glossy seals. We had to wade some 50 yards of shallow bouldery river at the side, and the water was almost freezing, while the sun overhead was scorching.

On the far side was no vestige of shade in sight for miles, and it was nearly midday, so we hardened our hearts and tramped on, not sorry at one branch stream to again paddle through the cold water. Then came two or three miles more of stony sandy trudging under a sun that got hotter and a glare increasingly intense. Food was far behind, delayed at the ferry, so we kept on till cultivation was at last reached, and then we saw a ripe mulberry tree—what joy!—and near it a clear stream, so there we drank and feasted on Nature's bounty.

An hour or two later one of the orderlies turned up; he had demanded a short-cut and the Baltis showed him one: it led right through the main river, which was more than waist-deep and a quarter of a mile wide. Attar Khan went through for the honour of his regiment, but was not sure whether his family would see him again. The *short*-cut then led over loose sandy plains and sand dunes; still, here he was, and he saluted his officer smiling, and fell to on the mulberries. At last came the cook, and we indulged in a more substantial meal before pushing on to our camp at the foot of the low ridge which we should cross to reach the Saltoro Valley. Tents were soon up, and I strolled off to sketch; we heard some chikore, and the two orderlies went off with a gun and three or four cartridges. Both were good shots, but preferred to stalk until two birds might be seen in a line sitting, which was economical of powder.

The fields around our camp were very fertile, and water

was plentiful, but large portions of the valley have been spoilt by floods covering the soil with stones and sand. Next morning we started up the hills, which appeared a few hundred feet high, but were in reality over 1,200 feet. This low line of hills divides the lower 8 miles of the Saltoro Valley from the Shayok. It is all schistose rocks, but on the rounded top were pond beds and lines of granite blocks, some of great size, and it appeared that the Saltoro had once been ice-filled and overflowed this ridge. On the opposite side of the Hushe *nullah* to the west is similar evidence.

The schists and slates could be traced away to the west beyond the Hushe, and I remembered the continuation still farther west in the Thalle *nullah*; while to the east they can be traced south of the Saltoro and right away to the upper Shayok. We looked across the open cultivated Saltoro Valley to the huge granite precipices, of which Longstaff says: "Opposite Paro sheer spires of granite shoot straight up from the river to a height of 5,000 feet or more, forming one of the most tremendous palisades I have ever seen—'one adamantine dominion and rigid authority of rock.'"

At the foot of each side cleft was a large alluvial fan well cultivated, with beautiful groves of trees and prosperous hamlets. The mosques in some of these, as at Paro, are of considerable size and beauty, with massive timber pillars, architrave, and small central roof spires like those in Kashmir.

There are large sunny verandahs in front, which become the village club, where all the men meet and settle the affairs of the world. During the winter months they must have a very lazy time, as the women do all the weaving as well as the domestic work.

In the course of the afternoon I saw nearly fifty patients. Some of these required eye operations, including three cataracts. Our Oxford M.D. was duly impressed by the

simplicity of the surroundings and lack of the accustomed paraphernalia and ritual. However, the result was satisfactory, as I tested some weeks later on my return journey. At the next stage also (Mandi) quite a number of sick people came. A few miles on from this we came to Dumsum, where the Kondus River emerges from its narrow rock gateways, great granite walls several thousand feet high, wonderfully smooth surfaced, and with one or two clefts or chimneys running almost from top to bottom. Up that valley we saw the twin peaks of K^{10} and K^{11}, and were told of a pretty summer resort to which the Rajah of Khapallu sometimes goes, where are hot-springs and groves of willow-trees.

Close to the junction, on some huge granite boulders, were ancient Buddhist drawings of *chortens* and symbols, as well as the familiar ibex.

For some hours we mounted rather steeply beside the river, which thundered down over boulders. The river seems here to be flowing in a synclinal axis, and it is difficult to account for the "tread and riser" formation merely by the presence of a rock barrier. Immediately above, at Mandi and Palit, extensive fragments of old lateral moraines cling to both sides of the valley, 1,000 feet above the present wide river-bed. And it would appear to me that here, as in so very many of the higher Himalayan and Karakorum valleys, the evidence is of the conservative action of glaciers, not excavating their bed, but protecting it from aqueous erosion.

At this height (10,000 feet) the crops were not far advanced and no apricot-trees were seen; but there are numerous villages. By orders of the Wazir several men now came to us as porters from each village, each man with a week's rations. There seemed mutual good-will between these Baltis and the Wazir, but they complained of the oppression of the Kashmiri Tehsil officials. The taxation of this district is only Rs. 190 per annum, which

does not seem excessive, and the people are quite willing to pay, but ask to be let alone. Perhaps a critic will say that the European traveller and sportsman is a chief offender, and that we ourselves dragged thirty men from their homes for two or three weeks, to carry our loads along pathless glaciers and up unknown mountains. It must be admitted that if left absolutely to themselves the villagers would not of their own free will have come with us; and so the situation is one that calls for very special consideration by the employer who obliges them to come. The least that he can do is to guarantee by personal supervision that they are sheltered at night, not overladen in the day, well fed, and finally paid in full by his own hand.

We needed the services of about one-fourth of the able-bodied men in the place, and for nearly three weeks; but the sum actually disbursed in hard cash was sufficient to pay the whole taxes of the district for a year, and from first to last we did not have to strike or even to threaten any of the men, who appeared to serve most happily. Moullah Halim of Palit was made headman—a sturdy, well-set man of mixed race; not a pure Balti—few of our men appeared to be that—and yet not altogether resembling the Balti-Shins.

It seemed to me likely that the Tibetan conquerors of a thousand years ago pushed up the indigenous peoples (Brokpas) into these corners of the Karakorum. I photographed one or two groups of them and measured their heads. Moullah Halim had travelled and worked all over North India, and even in Burma, and had made money, but fell ill, and in hospital it all melted away. So again he worked to raise one or two hundred rupees, with which to return to his own home. We talked about many things as we walked up the valley.

On June 11th we left the last hamlet and turned up a large lateral valley to the north, between gigantic rock-walls, similar to those of the Kondus. We entered

it crossing the foaming torrent on a single poplar beam. Soon we passed the snout of a small hanging glacier on our left; and after another hour ascended some hundreds of feet, almost under the terminal ice (there was no fresh moraine in front of it) of a second side glacier which has been advancing for some years. The snout is covering up rose-bushes and small pencil cedars as it advances.

Above this the valley floor is broad and level, right up to the Bilaphond glacier—another instance of the protective action of ice. The actual rocky bed of the valley is far below, and the present floor is due to glacial deposits.

Near the snout of the Bilaphond is a lovely level camping-ground, Ghyari, well known to the people who graze their flocks here for two months in summer. Streams of crystal water flowed through thickets of willow, tamarisk and hippophae, with a few old pencil cedar-trees, and lovely bushes of roses and red currants. The soft grass sward was fragrant with scented flowers, and starry columbines, buttercups, and gentians grew by the water.

Among the birds Longstaff recognized the ibis-billed curlew; there were various songsters in the grove, and the white-cap redstart flitted along the stream.

Our porters took possession of snug rock-shelters among the huge fallen fragments, and there were separate caves for our cook and for the bags of stores. Never have I enjoyed so luxurious a base camp. We even picked ripe raspberries, and gathered stalks of rhubarb to be stewed for dinner. The Wazir had ordered a few goats to be brought up, and these enjoyed the fat pasture and supplied us with rich creamy milk. We spent a quiet sabbath in camp, and had meals in a shady bower, which was built for us beside the clear rippling water. The well-made stone shelter showed that this little paradise had attracted previous inhabitants; and it is likely that Vigne had rested there sixty years before.

We spent one day scrambling up one of the near hills,

from which Longstaff began to take observations for his map. We looked right up the Bilaphond glacier, saw the peak of K II in the clouds, and the snow saddle of the pass.

Next day an early start was made with fifteen selected men, each with fifteen *seers* load. The climb up the snout of the glacier was steep, and the ice covered with loose debris, so it took us nearly two hours to do a mile. The natives declared that formerly the Chumik and the Bilaphond glaciers were separate and nearly a mile farther back, and in proof of their assertions pointed to an old shepherd's shelter in a thicket of alder and juniper which is now invaded and surrounded by ice. There is no definite lateral moraine above the lower quarter of a mile, but at the edge of the glacier were little bits of broken up moraine being crushed up the slopes.

As Longstaff wrote : " Well disposed glaciers leave a road between themselves and their containing wall, but the Bilaphond is an overbearing monster, full to the brim, and piling up its moraines in fearful confusion against the bases of its confining cliffs."

At the foot of the first lateral glacier on our left, *i.e.*, west side, we found a flat sandy place where we could rest and get a meal. The snout of that glacier formed a huge ice cave, and the ice was split in a remarkable, fan-shaped way. At another place was a sandy plain, 200 feet below us, some four or five acres in extent, evidently the bed of a lake, not long drained. In another mile we passed through an alley of *champignons*—large rocks resting on clear ice stalks.

Still another hour's moraine hopping, and we were abreast of grassy slopes and a stream flowing in the trough, to which we descended 200 feet. The natives called the place " Narm," *i.e.*, soft ; not Ali Bransa, as marked in the G.T.S. map. We had only covered 6 miles in seven hours' hard going. One or two of our men had fallen, as the boulders we had to walk on or touch in passing were

Siachen Glacier.

Murgisthang Glacier.

most unstable, and it needed much agility not to be struck or to tumble with them. At this camp we found a few dwarf birch-bushes, and many lovely flowers, oxytropis, astragalus, pedicularis, sedums, aconites and geraniums.

Even at our next camp, the true Ali Bransa, over 17,000 feet, I found several flowers, such as asters, polygonums, astragalus, and sedums, though the snow had not long been off the ground. Our march the second day up the glacier was much easier, although we ascended more steeply, for there were wide alleys of white ice, little crevassed, between well-made medial moraines. The surface streams were large and cut the glacier deeply, leaving in places some curious cones of ice.

Most of the moraines were of reddish felspar granite, but higher up on the east side were some schists. On the west side the cliffs were abrupt, and one gigantic pointed tower, four-square at the base, was a conspicuous landmark. As we proceeded the gradient diminished and we came to the junction of three glaciers where crevasses were more numerous, but by keeping up the central moraine we avoided most of them. At one place we made a temporary bridge of tent-poles for our porters, and roped to cross. In another hour we were under the stony plateau which Moullah Halim called Ali Bransa, and decided to ascend it—a rough climb, but rewarded by ample level for our tents. Had we only known it, the real Ali Bransa lay a quarter of a mile up the lateral trough. However, we were snug and well provided, and though it snowed a little at night, the clouds cleared, and going out of my Mummery shelter, I saw the pole-star immediately over the saddle ahead which was to be our pass.

Next morning we were off again at 6.30. Had we been an hour earlier we should have been saved from infinite labour.

In half an hour we passed three old stone shelters, on a strip of solid moraine almost overwhelmed by the ice.

Near by were some ponds. It seemed that no one had visited the place for ages; all the huts were ruinous, and there were no signs of fires nor had any of our local men from Gouma ever heard of these shelters. They may be hundreds of years old. Neither Vigne nor Ryall came so far. I believe that Dr. and Mrs. Workman, three years after us, took a different line up the glacier, and it was very near here that one of their guides fell into a crevasse and was killed. We had some difficulty, but our experienced and cautious leader insisted on all roping in suitable parties, and he carefully probed the hidden crevasses. The last 500 feet to the pass was steeper, but in good condition, and our porters went well. We were at the summit by 11 a.m., and shouted for joy to see the wide, flat, firm surface and view away beyond. Moullah Halim solemnly faced round to Mecca, and made the nearer snow-hills echo and wonder as he chanted out the grand old Arabic call: "God is great, God is great. Come to prayers." It was a thrilling moment—a moment to worship the Creator of things so wonderful and so unearthly.

We were fully convinced at the moment that we had crossed the great divide of the Karakorum, and that the valleys to the north drained into the Yarkand River. From our pass we looked up west to the half-hidden peaks of K^{II}. North, a broad snowfield and glacier led gently downwards to a still larger sea of ice sweeping to the right, the east, and beyond that rose a mighty wall of rocky mountains which we assumed must be the Aghil Mountains of Younghusband. A good halt was made while Longstaff set up his plane table, and all our cameras were fired off. Then came the start at a good pace along the crisp surface. In spite of the rope, which always lessens the speed, and the height, which was over 18,000 feet, we were taking sixty paces a minute, and each step 24 inches long, so in the first hour good progress was made; but there was an almost midsummer sun over-

head, and when we left the wind-swept summit softer snow was met with, and then hidden crevasses. We were in four roped parties, at short intervals, and the brunt of the work fell on our leader, Longstaff, who broke through to the knee at every step, and had to keep sounding for crevasses. There was a shout behind; a man on the second rope had gone in; he was pulled out while we all waited. Slingsby led on the last rope, and his rear porter seemed unable to stride even a 3-foot crack, and sank into every hole. The two sepoys helped manfully. We resolved to steer for the right side of the glacier, where were rocky hill-sides free from snow, a mile or so away. Some of the hollows to be crossed were heart-breaking. The leader, by going on hands and knees, might remain for a minute on the crust and then suddenly plunge waist-deep, and even then find no footing. Here and there were crevasses. One curious thing I had never before experienced or read of, was that when our front rope men were all on a piece of firmer crust, suddenly with an explosive sound it cracked all round, and a piece the size of a tennis court would settle down with us on it for a foot or more. The first time it gave me the feeling of all going into a crevasse. It was really like the cat's ice on a pond, but on a magnified scale. This happened two or three times.

Ahmdhu, the Kashmiri *shikari*, a tough and powerful man, was now sent to the front to rest our leader. We twisted here and there, avoiding bad parts. The porters were good, for they carried 30-lb. loads and sank deeply, though we did most of the breaking of a track for them. In fact, we went on forearms and knees and tried to flog the snow into a path which would bear them, and it was most exhausting work.

The porters suggested that we should camp for the night on the ice and wait till it froze; but the edge was not far off, so we struggled on, reached bare ice, then moraine, and after a short rest and refreshment pushed on down the

glacier for a mile or two. Our leader stumbled and his ice-axe fell down a 30-foot crevasse. He was let down on a rope and recovered it, but in coming up knocked his knee; so we resolved to camp early, and at 4.30, finding a level piece of ice, spread out some flat stones and pitched our tents.

The moving glacier emitted appalling creaking cracking sounds, as if fresh gulfs were opening around us, followed by the rattle of falling moraine stuff. We three slept or rested calmly in our sleeping-bags and tiny tents, but the orderlies and porters, alarmed by the noises, left their tents and fancied some big rocks gave them greater security.

Next day we were off early to make the most of the frost-bound surface. Our garments and socks, damp from the previous day, were frozen solid. The middle of the glacier with its snow-crust now bore us, and was the best route. We tried to get off at a near corner, but the tangle of crevasses and seracs was terrible, so we kept on down to the main ice-sea, trampling through innumerable surface streams. Where the left lateral moraine worked into the main glacier we found hillocks covered with fine debris, and small ponds, and camped in a hollow on the ice.

Two of the older coolies had heard of this great glacier, and said it was called Teram, and that it would lead to "Chang Thang," by which we naturally supposed they meant the high mountainous region beyond the Karakorum. None of them suggested that only two marches down to the east we should reach the Nubra Valley, as would really be the case. Probably they knew nothing about it. But their assumption of knowledge confirmed my settled opinion that the line of peaks to our right as we looked east down the glacier were the Nubra peaks, which I had seen the previous year, and that a few miles lower down the glacier would turn north-east through a narrow pathless gorge, leading eventually to uninhabited Kufelang. In this I was proved wrong two months later.

My error arose from over-much reliance on the Survey map of the upper Nubra. So far as I had tested it personally the previous year, it seemed correct; and the Nubra natives spoke of the Siachen glacier as extending only three stages, and then a pass to the Remo glacier, on the east, thus confirming the map; while the view obtained by me of the mountains seemed to show a continuous ridge to the east of K^{12}. So I confess that I was obsessed with the view that we were on Chinese territory north of the Karakorum. It was outside our original plan to push farther north, and our provisions were not adequate, while my own remaining leave was now short. So we settled to send the two orderlies and Moullah Halim as far down the valley as they could accomplish in one day, while we surveyed, sketched, and made observations.

One thing was certain, that we were on the biggest glacier any of us had ever seen. We looked up it west for a distance we estimated at 15 miles. The elaborate survey which Dr. and Mrs. Workman had carried out during 1912 by Mr. Peterkin, while they themselves explored all the surrounding glaciers and made some important ascents to the Oprang watershed, and also over a snowfield and down the Kondus glacier, has revealed the great size of the glacier, which is far the largest in Asia, or elsewhere outside the Arctic regions.

My notes written on the spot say: "The main glacier is here two or three miles wide. The head of the glacier looks fully 15 miles off, and the peaks there are not so high, and there seem one or two lower saddles." One of these we called Younghusband saddle, deeming that it led to the Oprang, which was confirmed by Mrs. Bullock Workman, who herself ascended it.

I was not personally much impressed with the appearance or apparent altitude of Teram Kangri Mount, about which much has since been written. Judging it by the eye, I reckoned it at less than 25,000 feet. The chief

interest for me was the geology of the Teram range, for while all the Karakorum to our south were granite, at a glance I saw that the great wall in front was partly stratified. Some portions of it were dark and slaty, while the prominent ridge leading towards the highest summit was of light grey colour, and weathered into innumerable pinnacles on its face in a way significant of Kuling limestones, such as I was familiar with in the Zoji Pass. An examination of the moraines confirmed this: those that came from the range south of us were granite. On the opposite side, from a large lateral glacier, came dark grey moraines; nearer again were very light coloured moraines. So we set out to examine these, and found soft grey limestone, white marble, and grey schist. A medial moraine, coming from a peak on the south-west we called Cornice Peak, was also chiefly of limestone. It looked to me as if the highest part of Teram Kangri Peak might be slate.

Slingsby and I helped Longstaff measure a base line of 1,000 yards on the glacier, from each end of which he took plane-table observations, and also altitudes with a good clinometer. Meanwhile Gulab Khan, with Moullah Halim and another Balti, did a long day's trip down the glacier, and were absent over thirteen hours. We became anxious and nearly started off to find them. Moullah Halim had delayed them by falling down a 20-foot crevasse, and had been shaken badly.

They reported having descended about 7 or 8 miles, and that the glacier continued to bend towards the south-east. They had seen many ibex on the left bank, where there were some grassy knolls, and had brought back a primula, a sedum, and saxifrage.

During the afternoons I sketched and we obtained good photographs, but the most distant peaks to the west were never clearly seen for many minutes. We were sure one was Hidden Peak, or perhaps Gasherbrum. It is strange that, after all the centuries in which man has ignored

these untrodden regions of snow, within a few weeks of our penetrating from the Bilaphond Signor Sella should have photographed some of the same peaks from Sella Saddle, and the Duke d'Abruzzi looked down from near the Bride Peak on the head of the Kondus snowfields, which lay between him and the Siachen.

It was impossible for us to follow up our glacier—in fact, our main interest was to know where it went to, rather than where it came from, as the main peaks to the west had long before been triangulated. Accordingly, Longstaff determined to go round east to trace the outfall of the great ice valley; and we left the upper part to our successors—in this case Dr. Hunter and Mrs. Bullock Workman, who during 1912 with most praiseworthy tenacity followed it up, and discovered a snowy pass leading to the Kondus Valley, by which they returned to Khapallu. As regards Teram Kangri Peak, for a time it was supposed to be over 27,000 feet high, but during 1911 a surveyor—Mr. Collins—was at work in upper Nubra and established beyond doubt that the height was under 25,000 feet, which was near my estimation, published at the time in the *Times of India*. And certainly Dr. Longstaff had no more desire to exaggerate the importance of the discovery than I had, though his observations, when worked out, had that result, probably owing to the reading at one end of the base line being taken to a different point on the ridge.

We were driven back by famine, for we were unwilling to risk the lives of our porters by sending them across the Bilaphond Pass to fetch food without one of ourselves; and we now had only two days' provisions left for a three-day journey, and *no fuel*.

So we made an early start and a forced march, remembering our former difficulties, and that a fall of snow would cut our line of retreat.

The ice was in good condition, and we kept right up

the centre of the glacier, and did over 2 miles an hour up the gentle gradient. In four and a half hours we were on the summit snowfield, hardly having seen any crevasses to speak of; for the first time we got a clear view south by 21° east of the peak of K^{12}.

We deeply regretted not having time to ascend to a col on the west, which promised a great view of the ranges to the west.

Slingsby and I expressed a desire to have a desperate fling up the easy snow slopes leading to K^{10} and K^{11}, sure that a camp might be placed at 21,000 feet, and a climb attempted from there: but Longstaff wisely overruled us. He pointed out that it would take five days at the best to push any fresh provisions up to such a camp, and that the expedition could not afford the delay. On the far side the snow was already in bad condition, and after descending 500 feet we began to plunge deeply in. Snow bridges we had crossed early in the morning on our outward journey were too soft, but Longstaff worked out a safe route, and our porters travelled well, for they now appreciated the use of the rope.

We unroped at Ali Bransa shelters and increased the pace. Our line of descent below this was endangered by yawning cracks from 3 to 10 feet wide and 100 feet deep or more. We took these jumping, circumventing the wider ones, and our coolies emulated us in a go-as-you-like fashion. After twelve hours' going with scarcely a rest, we straggled in to Narm, which was re-christened Arám (rest), and flung ourselves down on the soft bank of flowers, shook hands with the good Wazir, who had toiled thus far up the glacier to meet us, and then enjoyed the tea and cakes he had prepared for us.

After four nights on ice and slabs, we much appreciated sleeping on mother Earth, with a mattress of herbs.

Next day Longstaff went up the steep valley to the east, trying to get a view of K^{12}, but it was clouded

over. Slingsby was off after the elusive ibex, while I pressed a large number of flowers and filled up my diaries. Heavy snow set in, which continued all night; so we congratulated ourselves and thanked Providence that the weather had not broken two days earlier and trapped us on the wrong side of the pass.

The descent to Ghyari was worse than ever, with the fresh snow hiding our footing; and most of us slipped or fell many times; but we knew the route, and the danger was practically nil, so we did not rope; and the porters, whose loads now scarcely averaged 15 lb. apiece, outpaced us, for they are ibex-footed, and their pliable *pabu* of untanned leather are better for "moraine hopping" than heavy nailed boots.

At the lovely oasis of Ghyari we spread ourselves out to wash and to dry, and rested a day or two, while letters were written, bread baked, and reorganization completed.

On the 21st we were sitting before a bonfire at night, when a man arrived laden with our accumulated mails of three weeks. The joy was great. Longstaff was now anxious to make a pass to the Nubra without returning to Khapallu.

On June 23rd we started up the great ice-fall of the Chumik glacier, which was bursting out over the tops of its lateral moraines. For two hours the climbing was rough and steep, but the local men guided us across to the north side, where we found some old and well-set lateral banks and troughs, grassy in places. Our camp that night was on a fairly level place, with a wall of very dark ice overhanging the trough in front of us. Here also ice advance was signalled.

Next day Longstaff did some mapping. Right along south of us was a most precipitous mountain wall, rising to perhaps 19,000 feet, to which snow still clung in a most amazing way, but at the rate avalanches were raining off, the cliffs would soon be left bare. The whole base

of the wall was a series of lumpy avalanche fans, but a few hundred yards on the ice was a tempting line for measuring. While at work we kept an eye on the threatening snow cliffs, and cameras ready. Presently we heard the sharp crack of a falling mass, which we photographed, and then bent our backs to the storm of finely powdered ice that swept over us, though we were well outside the range of any actual fragments.

The head of the valley to the north-west showed a col, approached only by long difficult seracs, not suitable for porters, and probably only leading to the part of the upper Nubra below which we knew the valley to be impassable. So we retraced our steps, and on the way my companions did a good climb on a side glacier, hoping to make the nearer acquaintance of the elusive K^{12}. (This peak is very plainly visible from the upper Nubra Valley, and stands up magnificently; but we were too close under its precipitous spurs.)

On June 27th, I parted from my friends, as Longstaff had decided to explore the Rgyong Valley, and failing an exit to the east, to take the Chulung *nullah* and cross by a new route to Chorbat, in the Shayok Valley. I must not attempt to follow his farther route in detail (see *Geographical Journal*, June, 1910).

His chief objective was now the Siachen glacier in upper Nubra, as he received letters from both Colonel Burrard and Sir Francis Younghusband assuring him that the glacier we had discovered beyond the Bilaphond Pass must be an upper reach of that. Knowing that the route was impracticable till mid-September, he visited the upper Shayok first; and then in the autumn, with Captain D. G. Oliver, succeeded in fording the Nubra River and prospecting up the Siachen till he proved its identity with the glacier we had been on in June. This glacier is not less than 45 miles in length, and is the largest in the world outside the polar and sub-polar regions.

My return journey was full of interest, though I much missed the pleasant companionship of Slingsby and Longstaff. From Khapallu I floated down the Shayok on a skin raft for a mile or two. We reached Skardo in a few days, and from there crossed the Deosai plateau, which I have described in an earlier chapter.

On the Burji Pass we met a great snowstorm, which continued all day; but we were obliged to push on for the sake of fuel. When it came to putting up our tents late in the afternoon we were all chilled through, and could not feel our hands when fixing the pegs. Next morning, soon after we started, the sun came out, the snow disappeared, and at once small squadrons of hungry mosquitoes bore down upon us and sucked blood. It was entrancing to drop down from this sub-Arctic region to the lovely Gurais Valley, then in its highest perfection of decorated beauty, the slopes lush with rich herbage, unbrowsed, untrodden, and unfaded, the general effect of the white blossoms of spirea, anemones, and cream-coloured columbines being that of a bridal bouquet. Three days later I crossed the Tragbul and saw the vale of Kashmir with its gleaming lakes basking in sunshine.

CHAPTER XXIV

MEDICAL MISSIONS AND OTHER THINGS

ON any fine morning in spring, from the hills above Srinagar, one can obtain a view of nearly 300 miles of snow-clad ranges, from the Brahma peaks in Kishtiwar in the far east, right along the serrated outline of the Pir Panjal to the peaks of Khāgān.

Thirty years ago none of the highest mountains in sight had been ascended. The superstitious natives dreaded the wilder places, which were to them a place of goblins and malignant spirits, where many evils might happen. It was with difficulty that in our earlier climbs we persuaded them to come at all, though they regarded the presence of a European as a protection. One by one the chief peaks round the valley have been conquered, more "first ascents" having fallen to Dr. Ernest Neve than to any one else, for his record includes Tattakuti, Haramouk, and Kolahoi. Many an interesting scramble have we had on these and many other unnamed summits.

But longer trips to the mountains such as I have attempted to describe were impracticable except at an interval of several years in the time when our hospital only had my brother and self in charge, for we were both of us up to the hilt in work, and even our furloughs to England had to be shortened, as each felt the strain when the other was away, even if a junior colleague from one of the other mission hospitals in the Punjab was temporarily available.

It is outside the scope of this narrative to give an account of the development step by step of the hospital work, but in the winter of 1886, with the advent of Dr. Ernest F. Neve, it took a stride forward. One of our first aims was to rebuild the whole institution completely, and erect a series of ward blocks on a more adequate scale and suitable style. The encouragement given by Colonel Parry Nisbet, C.I.E., who was then Resident, made the scheme practicable, and his wife laid the foundation-stone of the first new block to accommodate twenty patients. This was the first instalment of a plan which included seven other blocks, accommodating altogether 140 beds. These were nearly all completed within the next twelve years, and since then other important additions have been made, notably the commodious out-patient building with three operation-rooms, a bacteriological laboratory, and two consulting-rooms, with all the other necessaries. It has been wonderful how funds have been supplied for the purpose, without any special appeals or special efforts to raise money. So late as 1911 generous gifts from friends in England and a medical missionary colleague in Amritsar enabled us to fit up a complete instalment of Rontgen rays. The following account of one day's work gives an idea of the exceptional strain which comes at times upon the strength and resources of the staff.

For the last two days the roads leading into the city have been thronged with villagers, tramping in and singing as they tramp, drawn by the great shrine at Hazrat Bal, where the hair of Mohammed is displayed on certain festivals. These are the great days to which the people, especially perhaps the women and children, look keenly forward; for not only is there the display at the shrine, but the opportunity of showing off their best clothes and jewellery, and of seeing the shops of the city and making their frugal purchases. A bundle on the man's back contains a few days' rice and condiments, and the wife carries

a fat cock as a present to the moullahs. But there is a second pilgrimage centre with a special attraction for the many who have sore eyes or various surgical complaints, namely, the Mission Hospital, and the waves of the rising tide begin to lap in at the gates. It is scarcely the busiest season, but already 135 beds are occupied, and all these in-patients have been personally seen before 10 a.m. The hospital seems full of interesting cases, and we find that 107 different towns and villages are represented in the wards. Then comes the first preaching at 11 a.m. to a dense mass of people, and soon we and the nurses and some thirty helpers are dealing as rapidly and effectively as possible with the string of patients passing into the consulting-room. Some merely need a little medicine, others go into the minor operating-room and are prepared for operations; the women pass to the female dressing-room, while some are sent straight to the wards. By noon a hundred have been seen; but many very serious cases remain to be dealt with—a child who has fallen from an upper story and broken his skull, a woman who has fallen and sustained severe internal injuries as well as external wounds (she died, the child recovered), and a man with a fractured leg, as well as many requiring serious operations. But at noon we adjourn to the chapel for our usual prayer and service with the assistants, and then we separate to various wards to give some Bible teaching.

By 12.45 p.m. everything is once more in full swing; and in one room some private paying patients, including a high State official, are being attended to, while operations are being performed simultaneously in two other rooms. By 2.30 p.m. most of the out-patients have been treated and two more out-patient addresses given, and the European members of the staff take a hurried lunch, while the patients who have been dealt with are gradually dismissed. Then again we plunge into the operating; so far six major and forty minor operations have been done. A bad smash is

brought in after ten days' journey, from a town where there is a doctor. "Why did you come?" "Oh, *sahib*! the doctor wanted to cut off my boy's leg, and we heard that you save legs." An antiseptic leg-bath was ordered, splints were applied after removing some bone, and the leg was kept on. (He was able to walk in two months.) And so the hours passed. By 4 p.m. over 350 patients had been seen; but it was getting on for seven o'clock before our last operations were finished, and even then I was called along to the wards to check some bleeding in a case which had been operated upon earlier in the day. Well, it had been a good day's work; we three doctors and two senior assistants had between us performed twenty or twenty-one major operations and fifty minor. Our work was done, but the nurses' work went on till nearly midnight.

The busiest season is in April, May, and August. In the first month on one day there were 438 out-patients.

The teaching is an integral and essential part of the work, in order that our motives may not be misunderstood, and that the full message of Christianity may appear—a message for the hearts of the sorrowful and oppressed, as well as for the bodies of the suffering. Dr. Wilfrid Grenfell, C.M.G., the distinguished medical missionary of Labrador, says:

"I always kept pasted up in my surgery, where sometimes the continuous stream of patients calls for more sympathy than I have to give, and is likely to make one irritable and useless because unsympathetic, these old words:

> "'He did kindly things so kindly,
> It seemed his heart's delight
> To make poor people happy
> From morning unto night.'

Any time I happen to look up it is a clarion call to me that if I would find joy, the real way is His way."

The Leper Asylum, with an average of ninety inmates,

is another developing branch of our work. It began with a special ward in the hospital. Then came the grant by H.H. the Maharajah of a special and most admirable site, together with a yearly upkeep grant. Year by year the accommodation has been increased and improved; and those unfortunates who have once gone there now seldom care to leave or go to their homes except for brief visits. Their stay is quite voluntary, but they more and more look upon the place as their home, and the other inmates as neighbours and friends. Most of them come from the hill-districts around Kashmir, very few from the towns or larger villages, but there are some from Little Tibet with rather a severe tubercular type of the disease.

In some, as time goes on, the symptoms have become quiescent, and the patient appears cured, but is liable to relapses. We have used large quantities of nastin and other drugs for which resounding claims are made, but with no very great encouragement.

Yet the Leper Asylum is not a gloomy, depressing place, as would be expected by a visitor who noticed the terrible ravages of the disease, the disfigured faces, blinded eyes, mutilated and crippled limbs.

There are several occasions in the year when it is festive: gala days and feasts, when the children run races and the men and women bubble over with merriment and laughter; and there is usually an atmosphere of neighbourly kindness, and peaceful, lazy enjoyment of the good things provided, in no small measure due to the optimism of the Christian teaching of an Eternal Home of health and happiness in the presence of the Saviour and Father of all.

Their acceptance of this is implicit rather than explicit, and yet now and again one and another requests baptism.

One old man is an ex-soldier, who had fought in frontier wars, and when he came was a strict Mussulman of the usual

ceremonial type, and looked askance at Christianity. But his strength ebbed low, and he required amputation of one leg. While thus hovering between death and life, the Gospel which he had read became to him a living word of hope. This was years ago; and since then he has become yet more crippled, and can only move about on a go-cart, and can scarcely hold a spoon to feed himself; yet he is always a happy Christian, and is a spiritual help to others around him.

We are doing as much as the parents will allow to safeguard the children from contagion, and these are taught to read, sing hymns, and play games, and they lead a happy life, poor little lambs! in spite of the shadow that overhangs their future.

I have here written but little about the Kashmiris, amongst whom my lot has been cast. They have not the picturesque qualities of the bold bandits of the Afghan frontier; they have not even an heroic past, and yet I have a vision of a bright future, for there are many attractive qualities in the timid but versatile Kashmiri.

Many have written of them as a despicable race, and they are certainly not admired by their neighbours in North India. But in addition to their alert intelligence, their quick wit, and artistic qualities, many of them are not lacking in elements of heroism. Some years ago I was camped near a village, and hearing shouts, looked and saw cottages in a blaze. We ran to the spot. Two thatched houses were a sheet of flame, others immediately adjoining were in danger of catching. The villagers were working with marvellous courage and energy. Almost stripped of garments, but smeared with wet mud, with only skull-caps and loin-cloths they dashed into the flames, trying to rescue one or two women. With poles and forks the thatch of surrounding cottages was stripped off, and scrambling on the roof timbers, the burning rafters were hewn through or cut away. The men worked like demons, or rather

like fire brigade heroes, as if possessed by a spirit that set all dangers at defiance, with bare feet walking on red-hot timbers, dashing through the flames, and in half an hour, into which seemed compressed the agonies and the efforts of a lifetime, the fire was got under. Only two lives had been lost: women trying to rescue their property had been trapped in burning rooms by blazing timbers falling across the doorway. The rest of the houses, all huddled together, entirely built of pine logs, with inflammable gable thatched roofs, were saved, though at no slight cost to the men in the way of burns and bruises. More than once have I seen such a sight, the heroism of the fighters of the flames too often set off by contrast with the miserable selfishness of some who thought merely of saving their own pitiful possessions, or even, if the fire occurred in Srinagar, by the rascality of some who were attracted by prospect of plunder.

With the twenty years' work of that unique missionary educationalist, C. Tyndale-Biscoe, the Kashmiri has found a leadership making for manliness. He was the first to organize fire brigade work in Srinagar, himself leading his boys and masters in many a fiery combat. The school-boys are winning a reputation for saving the lives of the drowning in times of flood. Last year one mission school-boy saved the life of a boy who was drowning in the whirlpool at the gate of the lake. Ten such names are now recorded on the school roll of honour.

In times of cholera, too, we doctors have found willing helpers among Biscoe's boy-scouts, who have done yeoman service, not only in reporting cases in the early curable stages of disease, but also in attending the sick, administering medicines, and actual nursing, regardless of the peril to themselves.

There is indeed some good and brave material among this people.

As one here, and another there, steps out to challenge a wrong, to champion a right, to strive after an ideal, though

his confession exposes him to ostracism and to active persecution, I have seen the promise of the manhood that is to be. My firm conviction is that Islam can do no more for these races than it has done; they have reached the moral standard of the founder of their creed and of his chief Imāms. It has redeemed them from paganism, from the puerilities of popular Hinduism, and given them a certain simple belief which is worth infinitely more than the subtle philosophy of their educated Hindu compatriots, plausible as this may appear when dressed up in imitation of Christian ethics. But no man is the man he might be who does not consciously frame himself on the example of Jesus Christ. I have seen a spiritual power working in thousands of so-called low-caste Punjabis, lifting them up into a moral inheritance which Europe took fifteen centuries to acquire. It is the rebirth of a race which may affect a quarter million of such in the Punjab. If the Kashmiri could only be touched by the Heavenly Vision, what might not he too become!

I may be grievously misunderstood unless, in addition to my advocacy of practical Christianity in the form of social service in general and medical missions in particular, I outline briefly what in my opinion Christian missions stand for in teaching and ideals for this great country and what they do not stand for. Very emphatically, they do not aim at the reproduction among Indians of the special forms of denominational Christianity with which we are familiar in Europe. They do not stand for the continued gathering of converts to an Anglican Church or a Presbyterian mission, or to any defined ecclesiastical body coming from the West. It is unfortunate that under the working conditions of the past such has been necessary. But already the Central Committee in India of all non-Roman missions looks beyond this, and has outlined a much wider policy. In common with many advanced thinkers among Indians, such as Principal Rudra of Delhi, as well as most mission

leaders, I believe that the fusing of all the Indian races and castes into one great nation can only take place under the influence and inspiration of Christianity. How is it to be brought about? In the near future we look for a federation of all the existing ecclesiastical bodies on the basis of some simple formula such as that of the Christian Student movement, "I believe in Jesus Christ as my Saviour, my Lord, and my God." In India it might be well to add the word *only*, thus claiming an undivided allegiance.

But India should have its own national church, founded upon Christ Himself, looking to the New Testament directly for teaching and doctrine in the light of the experience of the past, avoiding those detailed definitions of doctrine in the terms of the historic creeds which have tended to divisions rather than to unity.

India has a great spiritual heritage of her own, which should be conserved, not destroyed. There can be no compromise with caste any more than with idolatry. But Christ meets the need of all classes and races as not merely the supreme revelation of Him "in whom we live and move and have our being," but also as the Living Person who gives spiritual life to those who trust in Him.

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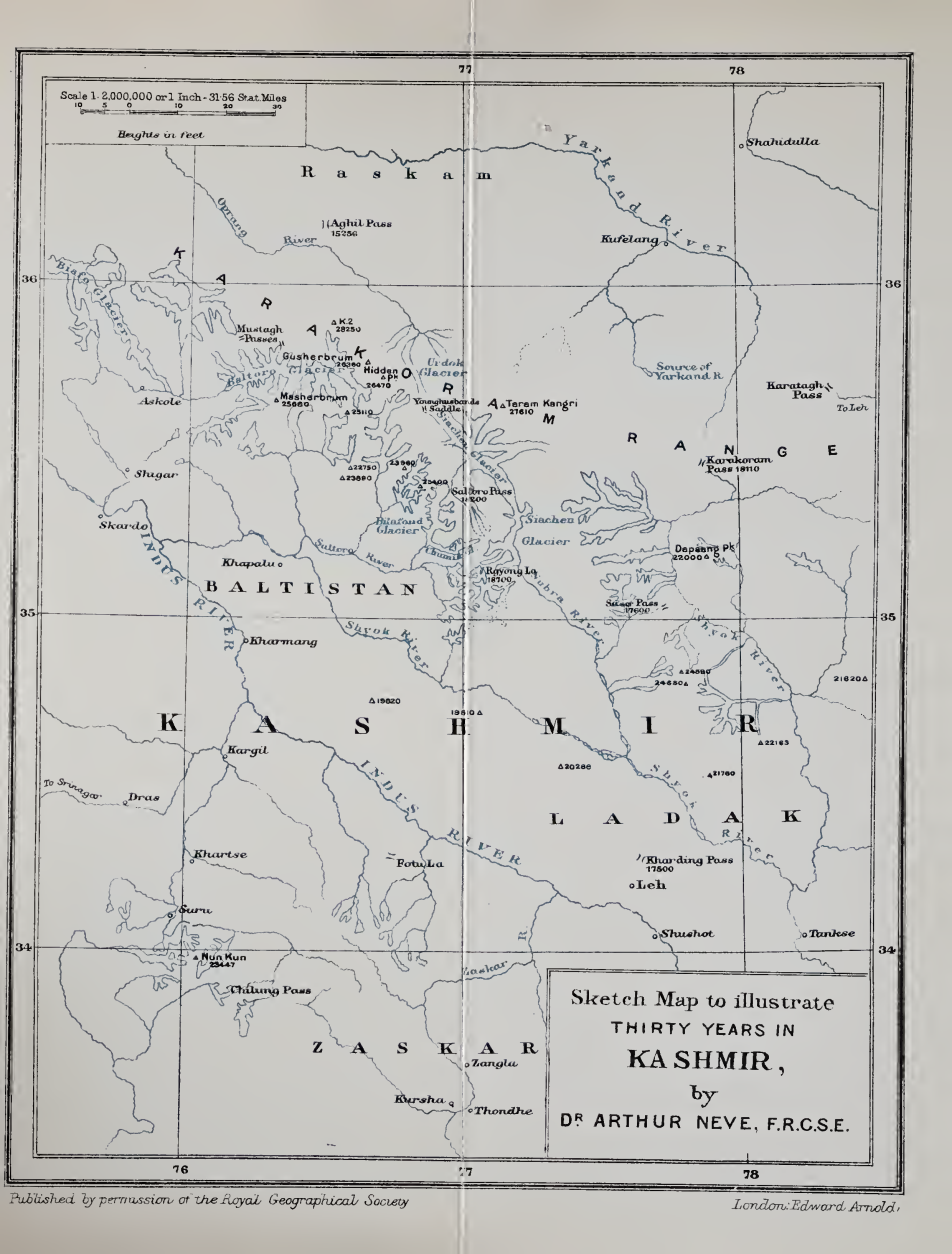

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